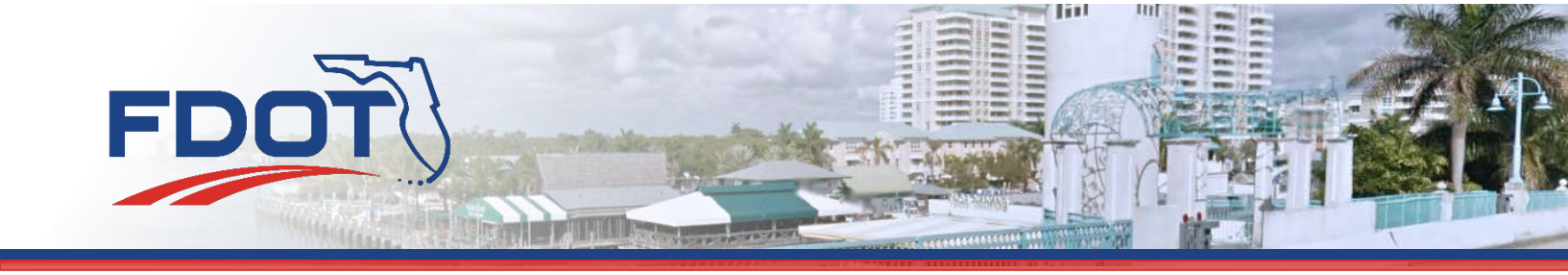

WETLAND EVALUATION REPORT

PD&E STUDY
SR-9/I-95 at SR-804/Boynton Beach Boulevard Interchange (MP 57)
and
SR-9/I-95 at Gateway Boulevard Interchange (MP 58)
Palm Beach County, Florida

Prepared for
Florida Department of Transportation – District 4
3400 West Commercial Boulevard
Ft. Lauderdale, Florida 33309 3421

Financial Management Number: 435804-1-22-01
Financial Management Number: 231932-1-22-01
Efficient Transportation Decision Making (ETDM) Numbers: 14180 and 14181

April 2017

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Prepared by:

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The environment review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the Florida Department of Transportation (FDOT) pursuant to 23 U.S.C. §327 and a Memorandum of Understanding dated December 14, 2016 and executed by the Federal Highway Administration and FDOT.

April 2017

Executive Summary

The Florida Department of Transportation (FDOT) District 4 is conducting a Project Development and Environment (PD&E) Study for SR-9/I-95 and Gateway Boulevard Interchange (milepost 58) and SR-9/I-95 at SR-804/Boynton Beach Boulevard Interchange (milepost 57) in Palm Beach County, Florida.

The purpose of this *Wetland Evaluation Report* (WER) is to document the findings of potential wetland involvement for the proposed improvements at SR-9/I-95 and Gateway Boulevard Interchange and SR-9/I-95 at SR-804/Boynton Beach Boulevard Interchange. This report presents the findings of a wetland evaluation needed to fulfil the requirement outlined in Part 2, Chapter 18 of the PD&E Manual (August 22, 2016). Study methodology included reviews of the Environmental Technical Advisory Team (ETAT) comments, literature reviews, agency database searches, agency coordination, Geographic Information System (GIS) analyses, and field reviews.

The project area was reviewed to identify, map, and assess wetlands and surface water communities location within and adjacent to the project corridor. Pursuant to Presidential Executive Order 11990 entitled “Protection of Wetlands” and the National Environmental policy Act, the project has been evaluated to assure the protection, preservation, and enhancement of the Nation's wetlands to the fullest extent practicable during the planning, construction, and operation of transportation facilities and projects.

The proposed build alternative was evaluated for potential impacts to wetlands and surface waters. No wetlands exist within the project area and no impacts to surface waters are anticipated. Direct impacts to roadside swales and ditches are anticipated to be less than a half an acre. The roadside swales and ditches impacted were built in uplands, are less than a half an acre, and do not provide significant habitat for threatened and endangered species. Per the South Florida Water Management District (SFWMD) Basis of Review, Section 10.2.2.1, these features classified as “other surface waters” normally would not require mitigation.

The Florida Fish and Wildlife Conservation Commission (FFWCC) commented that there is the potential for water quality degradation due to increased storm water runoff into drainage canals and ultimately into the Lake Worth Lagoon as a result of this project. Significant impacts to water quality are not expected because the proposed improvements are to an existing facility and runoff from any proposed additional impervious surfaces will be treated in accordance with SFWMD stormwater permitting requirements. No cumulative impacts to the project areas are anticipated due to the highly developed nature of the area along I-95 in Palm Beach County**.**

During the design phase, permits and other authorizations will be required. Permits from the U.S. Army Corps of Engineers (USACE) and the SFWMD are anticipated due to surface water impacts. It is anticipated that the following permits may be required:

- USACE Nationwide Permit,
- SFWMD General Environmental Resource Permit, and
- Florida Department of Environmental Protection (FDEP) Generic Permit for Stormwater Discharge from Large and Small Construction Activities (CGP).

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LIST OF ACRONYMS

AASHTO	American Association of State Highway and Transportation Officials
AN	Advanced Notification
APE	Area of Potential Effect
BMP	Best Management Practice
CAAA	Clean Air Act Amendments
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CSER	Contamination Screening Evaluation Report
CRA	Comminity Redevelopment Area
dBA	A-Weighted Decibel
DOA	Determination of Applicability
DOS	Department of State
DRA	Drainage Retention Area
DRI	Development of Regional Impact
EA	Environmental Assessment
EFH	Essential Fish Habitat
ERM	Environmental Resource Management
ERP	Environmental Resource Permit
ESF	Emergency Support Functions
EST	Environmental Screening Tools
ETDM	Efficient Transportation Decision Making
FDEP	Florida Department of Environmental Protection
FDHR	Florida Division of Historical Resources
FDOT	Florida Department of Transportation
FEMA	Federal Emergency Management Agency
FPPA	Farmland Protection Policy Act
FFWCC	Florida Fish and Wildlife Conservation Commission
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
FLUCFCS	Florida Land Use Cover Forms Classification System

FMSF	Florida Master Site File
FS	Florida Statute
FY	Fiscal Year
GIS	Geographic Information System
LDCA	Location and Design Concept Acceptance
LEP	Limited English Proficiency
LOS	Level of Service
LRTP	Long Range Transportation Plan
MLOU	Methodology Letter of Understanding
MOT	Maintenance of Traffic
MPO	Palm Beach Metropolitan Planning Organization
NAAQS	National Ambient Air Quality Standards
NAC	Noise Abatement Criteria
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NSA	Noise Study Area
NWI	National Wetland Inventory
PD&E	Project Development and Environment
ROW	Right-of-Way
SERPM	Southeast Regional Planning Model
SFWMD	South Florida Water Management District
SHPO	State Historic Preservation Officer
SIMR	System Interchange Modification Report
SR	State Road
STIP	State Transportation Improvement Plan
TDM	Transportation Demand Model
TIP	Transportation Improvement Plan
TSM	Transportation System Management

USACE	U.S. Army Corps of Engineers
USC	United States Code
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
WER	Wetlands Evaluation Report

1. Introduction

The Florida Department of Transportation (FDOT) is conducting a Project Development and Environment (PD&E) Study for interchange improvements located at SR-9/I-95 and Gateway Boulevard Interchange (milepost 58) and SR-9/I-95 at SR-804/Boynton Beach Boulevard Interchange (milepost 57) in Palm Beach County, Florida. The alternatives developed in this PD&E Study and the associated social, economic, and environmental analyses were evaluated according to the requirements of the National Environmental Policy Act (NEPA) and FDOT's PD&E Manual, Part 1, Chapter 5 in order to receive Location and Design Concept Acceptance (LDCA). The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by FDOT pursuant to 23 U.S.C. §327 and a Memorandum of Understanding dated December 14, 2016 and executed by the Federal Highway Administration (FHWA) and FDOT.

The Federal Fixing America's Surface Transportation Act (FAST Act, 2015) serves as the current regulatory and funding framework for transportation planning. The Palm Beach Metropolitan Planning Organization (MPO) is the government organization that provides both long-range and short-term transportation planning for Palm Beach County. The Palm Beach MPO 2040 Long Range Transportation Plan (LRTP, October 2014) represents long-term transportation planning for Palm Beach County. The MPO's Transportation Improvement Program (TIP) represents short-term planning. The purpose of the LRTP is to identify the transportation needs of the community and establish priorities for funding those improvements in the TIP. The MPO priority projects are listed in the TIP Priority Projects FY 2016-2020 (April 2015).

FDOT lists planned projects with federal participation, including all MPO TIPs, in the State Transportation Improvement Program (STIP), which is submitted to, and approved by the FHWA. The PD&E Study for SR-9/I-95 at SR-804 Boynton Beach Boulevard Interchange and at Gateway Boulevard Interchange is programmed for PD&E Study under the Fiscal Year 2015-2018 STIP.

While the improvements at both interchanges are not included in the cost feasible component of the 2040 LRTP, one highway project in the vicinity of the interchanges is provided in the LRTP needs component. This project is for the Strategic Intermodal System (SIS) implementation of managed lanes on I-95 from the Palm Beach County/Broward County Line to Indiantown Road. Projects that are in the vicinity of both interchanges are identified in the STIP and include:

- Preliminary engineering for future capacity of SR-9/I-95 from Linton Boulevard to Indiantown Road (FM# 433109);
- Planned interchange improvements at SR-9/I-95 at Hypoluxo Road (FM# 413257); and
- Planned interchange improvements at SR-9/I-95 at Woolbright Boulevard (FM #231932).

The purpose of this report is to document the findings of potential wetland involvement for the proposed interchange improvements located at SR-9/I-95 and Gateway Boulevard Interchange and SR-9/I-95 at SR-804/Boynton Beach Boulevard Interchange. Additionally, the purpose of this study includes:

- Evaluation of Potential Project Impacts to Wetland Areas;

- Integration of all Avoidance/Minimization Alternatives as part of the roadway design alternatives;
- Description of wetland habitats [e.g., Florida Land Use, Cover and Forms Classification System (FLUCFCS)]; and
- Promotion of the integration of all practicable measures to minimize harm to wetlands.

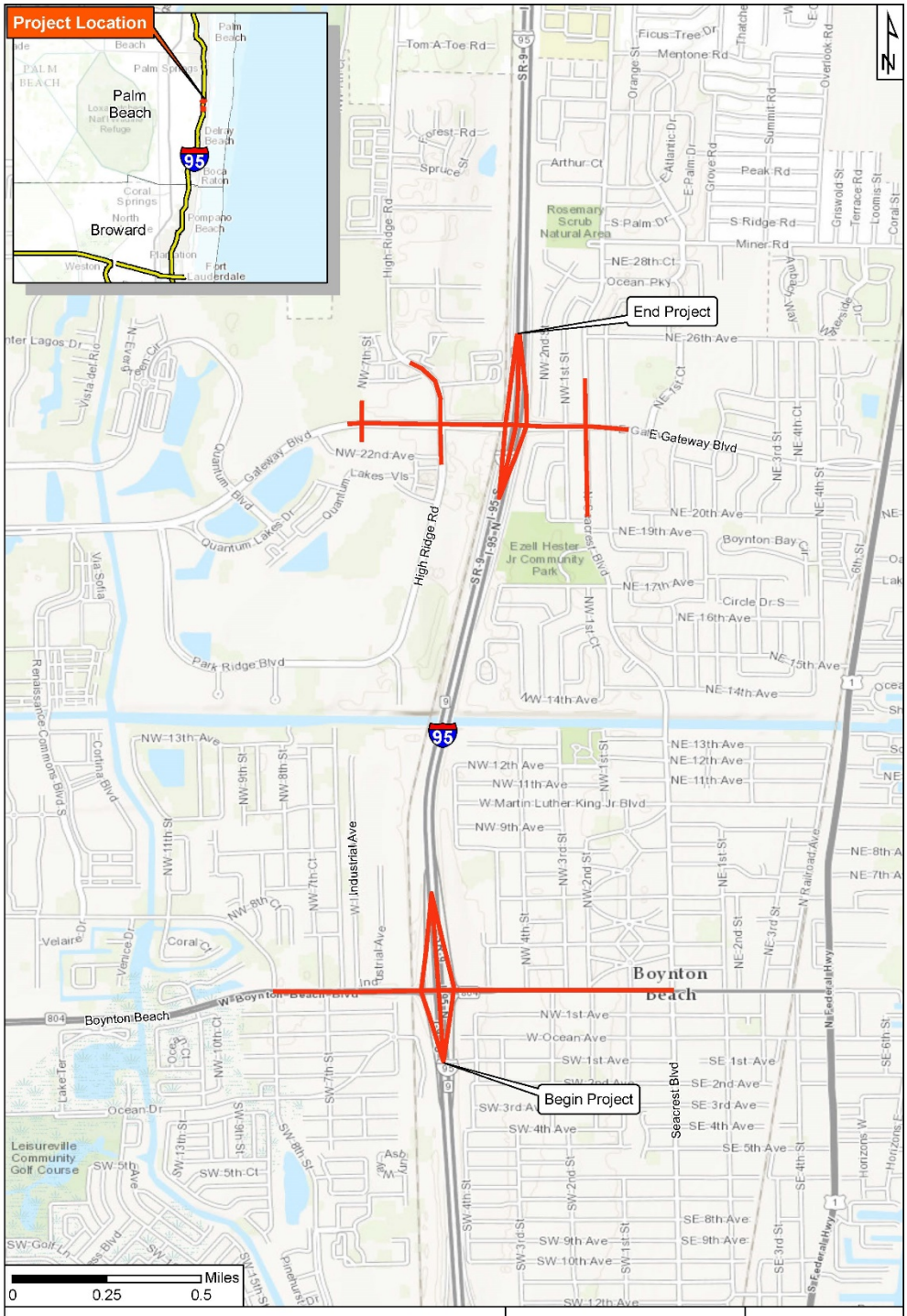
This Wetland Evaluation Report (WER) was prepared in accordance with FDOT's Project Development and Environment Manual (PD&E Manual), Part 2, Chapter 18 (dated August 22, 2016), and FHWA Policy. According to Part 2, Chapter 18 of the PD&E Manual, Presidential Executive Order (EO) 11990 from FHWA entitled, "Protection of Wetlands", establishes a National Policy to "avoid to the extent possible the long-term and short-term adverse impacts associated with the destruction or modification of wetlands and to avoid direct or indirect support of new construction in wetlands wherever there is a practicable alternative". The EO 11990 has been implemented to assure the protection, preservation, and enhancement of the Nation's wetlands to the fullest extent practicable during the planning, construction, and operation of transportation facilities and projects. New construction in wetlands shall be avoided unless there is no practicable alternative to the construction and the proposed action includes all practicable measures to minimize harm to wetlands which may result from such construction. In making a finding of no practicable alternative, economic, environmental, and other factors may be taken into account. Additionally, cost alone will not necessarily render alternatives or minimization measures impractical since additional cost would normally be recognized as necessary and justified to meet national wetland policy objectives.

1.1 Project Description

The project study area (study area) is located in eastern Palm Beach County within the City of Boynton Beach between SR-9/I-95 Woolbright Road to the south and SR-9/I-95 at Hypoluxo Road to the north. The SR-9/I-95 at SR-804/Boynton Beach Boulevard interchange is located on I-95 at milepost 57 between the Gateway Boulevard interchange (1.5 miles to the north) and the Woolbright Road interchange (1.0 mile to the south). The SR-9/I-95 at Gateway Boulevard Interchange is located on SR-9/I-95 at milepost 58 between the Hypoluxo Road interchange (1.5 miles to the north) and the Boynton Beach Boulevard Interchange (1.5 miles to the south). At Gateway Boulevard, the project area extends from west of High Ridge Road to east of Seacrest Boulevard. At Boynton Beach Boulevard, the project area extends from west of Industrial Avenue to east of Seacrest Boulevard. A project location map is provided in **Figure 1**.

2. Purpose and Need for Action

The primary purpose of the proposed action is to enhance overall traffic operations at the existing interchanges of SR-9/I-95 at SR-804/Boynton Beach Boulevard and at Gateway Boulevard by providing improvements to achieve acceptable Levels of Service (LOS) in the future condition (2045 Design Year). The proposed action will support redevelopment efforts in the vicinity of the interchange, meeting the overall vision of the City of Boynton Beach. In addition, goals of the project include improving safety conditions and enhancing emergency evacuation and response times. The proposed action is anticipated to improve traffic operations at the study interchanges through implementation of operational and capacity improvements that will maintain and improve mobility, improve safety, and support existing and future development at the study interchanges.



PD&E Study
SR-9/I-95 at SR-804/Boynton Beach Blvd Interchange
SR-9/I-95 at Gateway Blvd Interchange
FM Nos. 435804-1-22-01; 231932-1-22-01
ETDM Nos. 14180 and 14181

PROJECT LOCATION MAP

FIGURE 1

2.1 Transportation Capacity

The study area was initially evaluated in the *I-95 (SR-9) Interchange at Boynton Beach Boulevard (SR-804) in Palm Beach County, Interchange Concept Development Report* (June 2014) and the *I-95 (SR-9) Interchange at Gateway Boulevard in Palm Beach County, Interchange Concept Development Report* (June 2014) [CD Reports].

Based upon the traffic operations analysis conducted for the study area interchanges and adjacent signalized intersections and documented in the CD Reports, the existing operational capacity and overall traffic operations (LOS) are deficient. These deficiencies are based on existing and future AM and PM peak hour traffic conditions for intersection delay and safety performance. LOS is a quality measure describing operational conditions of these facilities. LOS classifications are designated from LOS A to LOS F, with LOS A representing the best operating conditions and LOS F representing the worst. Operational conditions considered in an LOS classification include speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience. Existing and future AM and PM peak hour conditions for Boynton Beach Boulevard Interchange and Gateway Boulevard Interchange are shown in **Tables 1** and **2**.

Table 1 Boynton Beach Boulevard Interchange Existing and Future AM and PM Peak Hour Conditions

Boynton Beach Boulevard Interchange	Existing AM Conditions		Existing PM Conditions		Future AM Conditions		Future PM Conditions	
	Level of Service (LOS)	Delay (sec)[1]	Level of Service (LOS)	Delay (sec)[1]	Level of Service (LOS)	Delay (sec)[1]	Level of Service (LOS)	Delay (sec)[1]
Industrial Avenue	B	12.5	C	24.9	C	26.7	E	58.4
SR-9/I-95 Southbound Ramps	E	68.4	B	19.5	F	138.2	D	43.1
SR-9/I-95 Northbound Ramps	C	31.9	D	44.4	F	130.0	F	144.5
Seacrest Boulevard	D	45.0	D	35.6	F	158.7	F	178.6

1. sec: Delay in seconds per vehicle
Source: *I-95 (SR-9) Interchange at Boynton Beach Boulevard in Palm Beach County, Interchange Concept Development Report* (June 2014)

Table 2 Gateway Boulevard Interchange Existing and Future AM and PM Peak Hour Conditions

Gateway Boulevard Interchange	Existing AM Conditions		Existing PM Conditions		Future AM Conditions		Future PM Conditions	
	Level of Service (LOS)	Delay (sec)[1]	Level of Service (LOS)	Delay (sec)[1]	Level of Service (LOS)	Delay (sec)[1]	Level of Service (LOS)	Delay (sec)[1]
High Ridge Road	F	111.4	D	40.9	F	275.2	F	84.7
SR-9/I-95 Southbound Ramps	F	255.7	F	158.0	F	146.8	F	251.1
SR-9/I-95 Northbound Ramps	D	37.5	E	60.4	F	102.2	F	166.9
Seacrest Boulevard	D	43.6	D	38.4	F	195.2	F	204.9

1. sec: Delay in seconds per vehicle
Source: *I-95 (SR-9) Interchange at Gateway Boulevard in Palm Beach County, Interchange Concept Development Report* (June 2014)

Although the intersections operate at LOS E or better under existing conditions scenarios at Boynton Beach Boulevard Interchange, many of the individual through and turning movements at the intersections (which include approaches to SR-9/I-95) operate at LOS F during future AM and PM peak periods. Under the existing conditions scenarios at Gateway Boulevard Interchange, all intersections operate at LOS E or better except at the Gateway Boulevard - High Ridge Road and SR-9/I-95 southbound ramp intersections. Without improvements, the intersections will continue to experience excessive delays and queue lengths, and will continue to operate below acceptable LOS standards and the interchange will have insufficient capacity to accommodate the projected travel demand.

2.2 Economic Development

The area surrounding the SR-9/I-95 at SR-804/Boynton Beach Boulevard Interchange is urbanized, containing a mixture of commercial, industrial, and residential land uses. According to the City of Boynton Beach Future Land Use Map (**Appendix D**), the SR- 9/I-95 at SR-804/Boynton Beach Boulevard Interchange falls within the designated Community Redevelopment Area (CRA). The residential neighborhoods and business districts of this area are intended to be redeveloped by implementing compact, more intensive urban growth patterns that provide opportunities for more efficient use and development of infrastructure, land, and other resources and services. The area surrounding the SR-9/I-95 at Gateway Boulevard Interchange is urbanized, containing a mixture of residential and recreational land uses to the east and commercial, office, industrial, and residential activities to the west as part of the Quantum Park Development of Regional Impact (DRI). According to the City of Boynton Beach Future Land Use Map, the area will continue to support the noted land uses.

Population within the vicinity of the Boynton Beach Boulevard Interchange is anticipated to grow by approximately 10% from 2005 to 2035 primarily in the areas northeast and southwest of the interchange. Population is anticipated to grow by 46% within the vicinity of the Gateway Boulevard Interchange, primarily east of Seacrest Boulevard and

within the Quantum Park DRI. Employment in the vicinity of Boynton Beach Boulevard Interchange is projected to increase approximately 147% from 2005 to 2035, primarily in the areas northeast, east, and southwest of the interchange. In the vicinity of Gateway Boulevard, employment is expected to increase by approximately 173% primarily in the areas west and southeast of the interchange. These projections are based on data derived from the enhanced Southeast Regional Planning Model (SERPM) version 6.5 Managed Lanes Model (upgraded to include specific subarea improvements for the I-95 Interchange Master Plan). Improving the transportation infrastructure at the study area interchanges and adjacent intersections will support the redevelopment efforts in the vicinity of these interchanges and the overall vision of the City of Boynton Beach growth and economic development, as identified in the *Heart of Boynton Community Redevelopment Plan Update* (April 2014).

2.3 Secondary Criteria

2.3.1 Safety

The 2040 LRTP continues the requirement that the MPO carry out a planning process that increases the safety and security of the transportation system for motorized and non-motorized users. MAP-21 also establishes national performance goals for federal highway programs including:

- Safety - to achieve a significant reduction in traffic fatalities and serious injuries on all public roads; and
- System Reliability – to improve the efficiency of the surface transportation system.

The FAST Act continued the Highway Safety Improvement Program (HSIP) as a core federal program. To receive funding under this Program, states were required to develop Strategic Highway Safety Plans (SHSP). The SHSP is a data-driven, four to five year comprehensive plan that establishes statewide goals and objectives to reduce fatalities and serious injuries. In 2006, Florida completed development of a comprehensive SHSP. The overall goal of the SHSP is to reduce the number of fatalities in Florida to zero. Use of a systems approach in engineering is one of the objectives to be used in accomplishing this overall goal; to strike a balance between single unique locations and addressing the safety of the road network.

The CD Reports included a safety analysis of the study area. For the Boynton Beach Boulevard Interchange, crash data analyzed from 2010 – 2012 indicated 214 crashes occurred with 69% being rear-end type crashes. Predominant crash locations were along Boynton Beach Boulevard Interchange at the SR-9/I-95 northbound on and off-ramps and the southbound off ramp. For the Gateway Boulevard Interchange, crash data indicated 117 crashes occurred with 48% being rear-end type crashes. The segment of SR-9/I-95 in the vicinity of Gateway Boulevard Interchange is identified as a high crash segment having a higher crash rate compared with similar state roadways for the time period analyzed.

2.3.2 Emergency Evacuation and Response Times

SR-9/I-95 and SR-804/Boynton Beach Boulevard serve as part of the emergency evacuation route network designated by the Florida Division of Emergency Management and Palm Beach County. As designated evacuation facilities, these roadways are critical in facilitating traffic flows during emergency evacuation periods. SR-804/Boynton Beach Boulevard is a major east-west corridor in eastern Palm Beach County providing a linkage between SR-9/I-95 and

Florida's Turnpike. Both Boynton Beach Boulevard and Gateway Boulevard connect to other major arterials and highways of the state evacuation route network.

3. Project Alternatives

NEPA project development must consider a range of alternatives that meet the purpose and need of the project while balancing engineering requirements, impacts, and benefits. Project alternatives include the No-Build, Transportation Systems Management & Operations, and Build Alternatives.

FDOT is committed to the practicable avoidance and minimization of potential impacts to the social and natural environment when considering approval of proposed transportation projects. The study of alternatives and associated environmental consequences were evaluated according to NEPA and FDOT's PD&E process. This study process allows for coordination during the alternatives development process and thorough consideration of alternatives developed.

3.1 No Build Alternative

NEPA requires no change to existing conditions be considered as an alternative during the environmental review process. This alternative is designated as the No-Build Alternative, signifying that no new improvements or construction would take place. Although this alternative does not meet the purpose and need for the project, it will be considered serving as a baseline for comparison against other alternatives. The No-Build Alternative retains the existing roadway and interchange improvements, and would not have any direct impacts to the physical, natural, and social environments, right-of-way (ROW), structures, or utilities.

3.2 Transportation System Management and Operations (TSM&O) Alternative

The TSM&O Alternative includes implementation of non-capacity improvements to the existing transportation network that improve traffic flow, manage congestion, and maximize highway operations. Intelligent transportation systems (ITS), multimodal applications, adjusting signal phasing and timing, auxiliary lane additions, and higher land-use density strategies are TSM&O instruments used to maximize transportation infrastructure utilization. Such improvements are often less costly and require little to no ROW compared to physical expansion of the transportation network.

TSM&O improvements alone would not adequately accommodate the future year traffic volumes within the project's area of influence. The TSM&O Alternative alone is not considered a viable alternative. However, the build alternatives developed will incorporate viable TSM&O improvements.

3.3 Alternative Travel Modes

Multimodal facilities such as transit routes currently exist within the proposed project limits. The existing modes are incorporated into the build alternatives with current design standards. The Build Alternative for this project will include bicycle lanes and sidewalks that will connect to existing facilities to the east and west of the project limits. The

transit routes within the study area will not be affected by the Build Alternative. Alternative travel modes are not anticipated to reduce the future demand near this interchange.

3.4 Build Alternatives Development

As part of the PD&E Study, several roadway improvement alternatives were considered for improving traffic operations and safety near the SR 804/Boynton Beach Boulevard Interchange and Gateway Boulevard Interchange. The interchanges were initially evaluated in concept development reports completed by the FDOT through the I-95 Master Plan Project. The *SR 9/I-95 Interchange at SR 804/Boynton Beach Boulevard, Palm Beach County, Interchange Concept Development Report* (2014) and *SR 9/I-95 Interchange at Gateway Boulevard, Palm Beach County, Interchange Concept Development Report* (2014) developed and evaluated conceptual design alternatives for geometric criteria, impacts on structures, drainage, signing, and utilities, adjoining side street connections, signalized intersections, and constructability.

The recommended improvements resulted in development of a Conceptual Design Alternative (CDA). The CDA has been retained and will be evaluated as a build alternative in this PD&E Study. A *Tier 1 Alternatives Evaluation Technical Memorandum* (March 2016) was prepared that identified preliminary alternatives that improved traffic operations and safety. In addition to the CDA, eight (8) conceptual alternatives were developed for SR 804/Boynton Beach Boulevard Interchange and three (3) for Gateway Boulevard Interchange. A preliminary screening of each alternative was completed with respect to the purpose and need for the project, traffic operations, traffic safety, constructability, cost, right of way, environmental, and socio-economic impacts.

All Build Alternatives will incorporate TSM&O improvements and will be developed further as the project progresses. Of the preliminary alternatives developed, the following build alternatives were retained for full evaluation for each interchange. An alternatives evaluation matrix is included in **Appendix A**.

- Alternative 1 - Conceptual Design Alternative (CDA);
- Alternative 2 - Streamlined CDA; and
- Alternative 3 - Single-point Urban Interchange (SPUI).

3.5 Build Alternatives

3.5.1 SR 9/I-95 at SR 804/Boynton Beach Boulevard Interchange

Alternative 1 – CDA. This build alternative was retained from the concept development reports previously prepared and discussed in Section 3.4. The development of this alternative considered practical design and evaluated traditional turn lane improvements for the existing Tight Urban Diamond Interchange configuration to optimize the benefit to cost ratio without imperiling traffic operations and safety. This alternative, and specific improvements (1-9), are depicted in **Appendix A, Figure 6**.

For this alternative, proposed improvements include:

1. A new westbound right turn lane to Industrial Avenue;
2. Dual left and triple right turn lanes in the southbound direction at the I-95 southbound ramp terminal intersection;
3. Continuously flowing channelized eastbound right turn lane and dual westbound left turn lanes that create three SR 9/I-95 southbound on-ramp lanes; the third lane on the SR 9/I-95 southbound on-ramp is merged south of the ramp terminal intersection from the right side to tie into the existing dual lane on-ramp;
4. Dual left turn lanes in the eastbound and westbound along SR 804/Boynton Beach Boulevard;
5. Triple left turn lanes and single channelized right turn lane in the northbound direction at the northbound I-95 ramp terminal intersection;
6. Dual left turn lanes with extended queue lengths, single channelized right turn lane and additional through lane in the westbound direction along SR 804/Boynton Beach Boulevard east of the SR 9/I-95 bridge;
7. Continuously flowing channelized westbound right turn lane and dual eastbound left turn lanes that create three SR 9/I-95 northbound on-ramp lanes; two of the three lanes on this SR 9/I-95 northbound on-ramp are merged north of the ramp terminal intersection from the right to tie into the existing axillary lane between SR 804/Boynton Beach Boulevard and Gateway Boulevard;
8. Increased right turn storage lane along eastbound SR 804/Boynton Beach Boulevard at the northbound SR 9/I-95 ramp terminal intersection; and
9. New right turn storage lane in the eastbound direction at the SR 804/Boynton Beach Boulevard and Seacrest Boulevard intersection.

Alternative 1 also adds an additional westbound through lane between the SR 9/I-95 southbound ramp terminal and Old Boynton Road/SW 8th Street. This additional westbound through lane is dropped near the intersection of SR 804/Boynton Beach Boulevard and Old Boynton Road/SR 8th Street as a westbound right turn lane.

Alternative 2 – Streamlined CDA. This build alternative enhances Alternative 1 and avoids reconstruction of the SR 804/Boynton Beach Boulevard bridges over the CSX/South Florida Rail Corridor railroad (Bridge Number 930289) and SR 9/I-95 (Bridge Number 930285). This alternative retains Alternative 1 proposed improvements, as depicted in **Appendix A, Figure 7**, but proposes the additional improvements (1-4) as described below:

1. A closed median between 7th Street and Old Boynton Road;
2. Dual right turn lanes, a single left turn lane, and a shared left/right lane in the southbound direction at the SR 9/I-95 southbound ramp terminal intersection;
3. Continuously flowing channelized eastbound right turn lane and dual westbound left turn lanes that create three SR 9/I-95 southbound on-ramp lanes; the third lane on the SR 9/I-95 southbound on-ramp is merged south of the ramp terminal intersection from the left side to tie into the existing dual lane on-ramp; and
4. Triple left and dual channelized right turn lanes in the northbound direction at the I-95 northbound ramp terminal intersection.

Alternative 2 eliminates the additional westbound through-lane between SR 9/I-95 southbound ramp terminal and Old Boynton Road/SW 8th Street added by the Alternative 1.

Alternative 3 – Single-point Urban Interchange (SPUI). This build alternative proposes the construction of a new SPUI at the SR 9/I-95 and SR 804/Boynton Beach Boulevard Interchange. A SPUI configuration combines turning movements at the SR 9/I-95 northbound and southbound exit ramps to operate under a single traffic control device, resulting in a high capacity interchange. This alternative is depicted in **Figure 8 in Appendix A** and includes the following proposed improvements:

1. Convert existing dual ramp terminal signalized intersections into a single signalized intersection to serve both southbound and northbound ramp terminals. This Alternative will also replicate all improvements considered along SR 804/Boynton Beach Boulevard and the SR-9/I-95 northbound and southbound ramps under Alternative 2 as described above.

3.5.2 SR 9/I-95 at Gateway Boulevard Interchange

Alternative 1 – CDA. This Build Alternative was retained from the concept development reports previously prepared and discussed in Section 3.4. The development of this alternative considered practical design and evaluated traditional turn lane improvements for the existing Tight Urban Diamond Interchange configuration to optimize the benefit to cost ratio without imperiling traffic operations and safety.

This alternative, and the proposed improvements (1-8), are depicted in **Figure 9 in Appendix A:**

1. Dual left turn lanes and a single right turn lane in the eastbound direction at the Gateway Boulevard and High Ridge Road intersection;
2. Dual left turn lanes and a single right turn lane in the northbound direction at the Gateway Boulevard and High Ridge Road intersection;
3. Triple left turn lanes from southbound High Ridge Road to eastbound Gateway Boulevard;
4. Dual left and right turn lanes in the southbound direction at the SR 9/I-95 southbound ramp terminal intersection;
5. Dual right turn lanes from eastbound Gateway Boulevard to southbound SR 9/I-95;
6. Triple left and single right turn lanes in the northbound direction at the SR 9/I-95 northbound ramp terminal intersection;
7. Dual left turn lanes from northbound Seacrest Boulevard to westbound Gateway Boulevard; and
8. Single right turn lane from southbound Seacrest Boulevard to westbound Gateway Boulevard.

Alternative 1 adds an additional through lane in the eastbound and westbound direction to create an eight lane typical section along Gateway Boulevard within the project limits between Quantum Boulevard and NE 1st Way.

Alternative 2 – Streamlined CDA. This build alternative enhances Alternative 1 along with retaining most of Alternative 1 proposed improvements including the additional through lane in the eastbound and westbound

direction along Gateway Boulevard between Quantum Boulevard and NE 1st Way. Most of the SR 9/I-95 northbound and southbound ramp termini turn lane improvements are retained from Alternative 1 with adjustments to the intersection turn lane improvements at High Ridge Road.

For this alternative, proposed modifications are described below and shown in **Figure 10, Appendix A**.

1. Dual left turn lanes from southbound High Ridge Road to eastbound Gateway Boulevard as opposed to triple left turn lanes in Alternative 1;
2. A single right turn lane and shared thru/right turn lane from eastbound Gateway Boulevard to southbound SR 9/I-95; and
3. Triple left and dual right turn lanes in the northbound direction at the SR 9/I-95 northbound ramp terminal intersection.

Alternative 3 – Single-point Urban Interchange (SPUI). This build alternative proposes the construction of a new SPUI at the SR 9/I-95 at Gateway Boulevard Interchange. A SPUI configuration combines turning movements at the SR 9/I-95 northbound and southbound exit ramps to operate under a single traffic control device, resulting in a high capacity interchange. The following improvements are proposed for this alternative and are shown in **Figure 11 in Appendix A**.

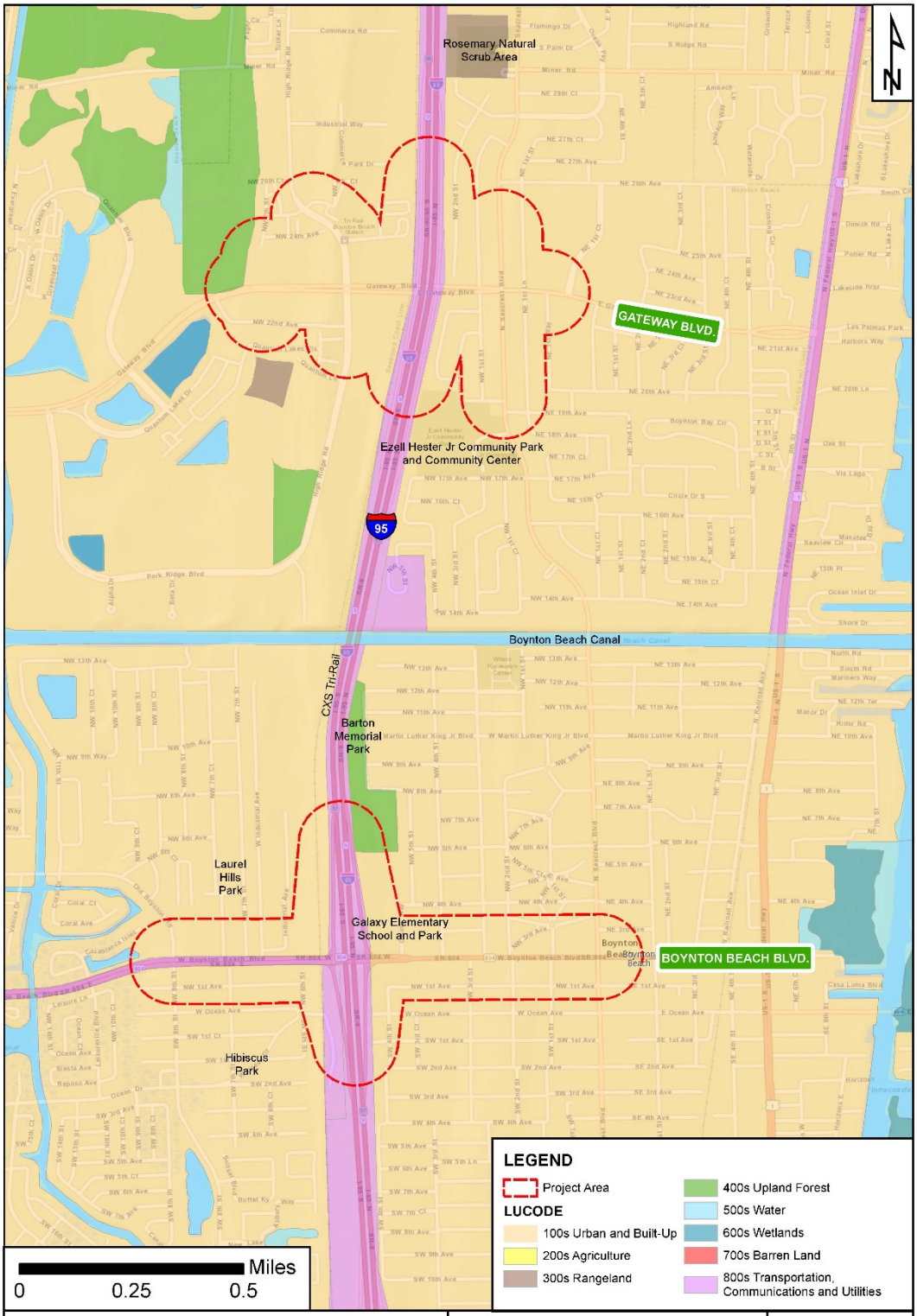
1. Convert existing dual ramp terminal signalized intersections into a single signalized intersection to serve both southbound and northbound ramp terminals. This Alternative will also replicate all improvements considered along Gateway Boulevard and the SR-9/I-95 northbound and southbound ramps under Alternative 2 as described above.

4. Existing Environmental Conditions

The following sections include descriptions of the land uses and natural features within the SR-9/I-95 and SR-804/Boynton Beach Boulevard Interchange and Gateway Boulevard Interchange project areas that would potentially be affected by the proposed interchange improvements. To characterize the project areas, the existing land uses and cover types were identified using South Florida Water Management District's (SFWMD) 2011 land use Geographical Information Systems (GIS) data and FLUCFCS codes. The study area encompasses a 500-foot buffer surrounding the proposed interchange improvements (**See Figure 2**).

4.1 Land Use

Both interchanges are located in urbanized areas. Land use surrounding the SR-9/I-95 at SR-804/Boynton Beach Boulevard Interchange consists of single and multi-family residential, commercial, office, light industrial, and public school. Land use surrounding the SR-9/I-95 at Gateway Boulevard Interchange consists primarily of transportation. Specifically, 97.4% of the project areas are classified as Urban and Built-Up (FLUCFCS 1210, 1330, 1340, 1390, 1400, 1411, 1550, 1710, and 1850) or Transportation (FLUCFCS 8120 and 8140), with a majority of the existing land use being Residential (FLUCFCS 1210, 1330, and 1340) and Commercial and Services (FLUCFCS 1390, 1400, and 1411) land uses at both interchanges. Existing land use, by acreage and percentage, within the project areas are shown in **Table 3.** The project areas also include Educational Facilities and Parks (FLUCFCS 1710 and 1850). The Ezell Hester Jr. Community Park and Community Center is located at the southernmost end of the Gateway Boulevard Interchange project area, east of I-95 and just north of NW 17th Avenue. Galaxy Elementary School and its associated recreational area, Galaxy Park, are located at the northeastern intersection of I-95 and Boynton Beach Boulevard. The CSX Tri-Rail track runs parallel and west of I-95. The Boynton Beach Train Station, part of the CSX Tri-Rail system, is also west of I-95 and north of NW Commerce Park Drive near the Boynton Beach Interchange.


Rosemary Natural Scrub Area
GATEWAY BLVD.
Ezell Hester Jr Community Park and Community Center
95
Boynton Beach Canal
CXS Tri-Rail
Barton Memorial Park
Laurel Hills Park
Galaxy Elementary School and Park
BOYNTON BEACH BLVD.
Hibiscus Park
N
LEGEND
Project Area
LUCODE
100s Urban and Built-Up
200s Agriculture
300s Rangeland
400s Upland Forest
500s Water
600s Wetlands
700s Barren Land
800s Transportation, Communications and Utilities
Miles
0
0.25
0.5
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EXISTING LAND USE MAP
Source: SFWMD, 2011
FIGURE 2

Several recreational areas are located outside of the project areas. None of these locations are anticipated to be impacted by the projects. The Rosemary Scrub Natural Area is approximately 700 feet north of the Gateway Boulevard Interchange project area, immediately east of I-95. This natural area has walking paths through scrub habitat that could potentially contain state and/or federally listed species, such as the gopher tortoise. Barton Memorial Park is approximately 150 feet north of the Boynton Beach Interchange project area, immediately east of I-95. This park contains walking paths, benches, and a small cemetery at the northern end of the park. Laurel Hills Park is a residential park found at the intersection of NW 4th Avenue and NW 7th Street, approximately 325 feet north and 610 feet west of the Boynton Beach Boulevard Interchange project area. Hibiscus Park is a residential at the intersection of SW 1st Avenue and W Ocean Drive. It is approximately 650 feet south and west of the Boynton Beach Boulevard Interchange project area.

Table 3 Land Use and Cover Types within 500 Feet of Boynton Beach Boulevard and Gateway Boulevard Interchange

FLUCFCS	Description	Acres in project area buffer (500 feet)	Percent Acres in project area buffer (500 feet)
1210	Fixed Single Family Units	138.45	33.77%
1330	Multiple Dwelling Units, Low Rise <Two stories or less>	36.71	8.95%
1340	Multiple Dwelling Units, Low Rise <Three stories or more>	9.59	2.34%
1390	High Density Under Construction	17.35	4.23%
1400	Commercial and Services	97.42	23.76%
1411	Shopping Centers (Plazas, Malls)	8.02	1.96%
1550	Other Light Industrial	3.49	0.85%
1710	Educational Facilities	15.12	3.69%
1850	Parks and Zoos	6.29	1.53%
4110	Pine Flatwoods	0.64	0.16%
4240	Melaleuca	5.95	1.45%
4340	Hardwood - Conifer Mixed	3.90	0.95%
5300	Reservoirs	0.19	0.05%
8120	Railroads	6.78	1.65%
8140	Roads and Highways	60.08	14.65%
	Total Acreage	**409.97**	**100%**

Source: SFWMD, 2011

4.2 Natural and Biological Features

Upland habitat, disturbed and undisturbed (FLUCFCS 4110, 4240, and 4340), makes up 2.6 percent of the project areas. Uplands account for 1.61% of land use at Gateway Boulevard Interchange and 0.95% of land use at Boynton Beach Boulevard Interchange project areas. The habitat quality of these upland areas is low given the high level of human use, habitat fragmentation, and the landscaped nature of the vegetation. The only natural upland habitat within the Boynton Beach Boulevard Interchange project area is a strip of remnant xeric scrub located northwest of

Galaxy Elementary, bordering the I-95 northbound ROW. Within the Gateway Boulevard Interchange project area, there is a remnant strip of sand pine scrub that grades down to a Melaleuca stand on the west side of Quantum Village commercial plaza. There is also one acre of hardwood/pine forested "native preservation area" located between the Children's Services Council facility and High Ridge Road, northwest of the Gateway Boulevard Interchange. An undeveloped parcel of upland habitat also exists southwest of the Gateway Boulevard Interchange.

No natural wetland habitat exists within 500 feet of the Gateway Boulevard Interchange or Boynton Beach Boulevard Interchange project areas. The Efficient Transportation Decision Making (ETDM) tool, the 2014 National Wetland Inventory (NWI), and three field reviews, conducted in August 2015, April 2016, and January 2017, confirmed these findings. There are, however, existing storm water features throughout the project areas. During the field reviews and a desktop review of aerial imagery, two surface waters (Surface Waters A and B), which are part of existing storm water facilities, were identified within the Boynton Beach Boulevard Interchange project area.

4.3 Soils

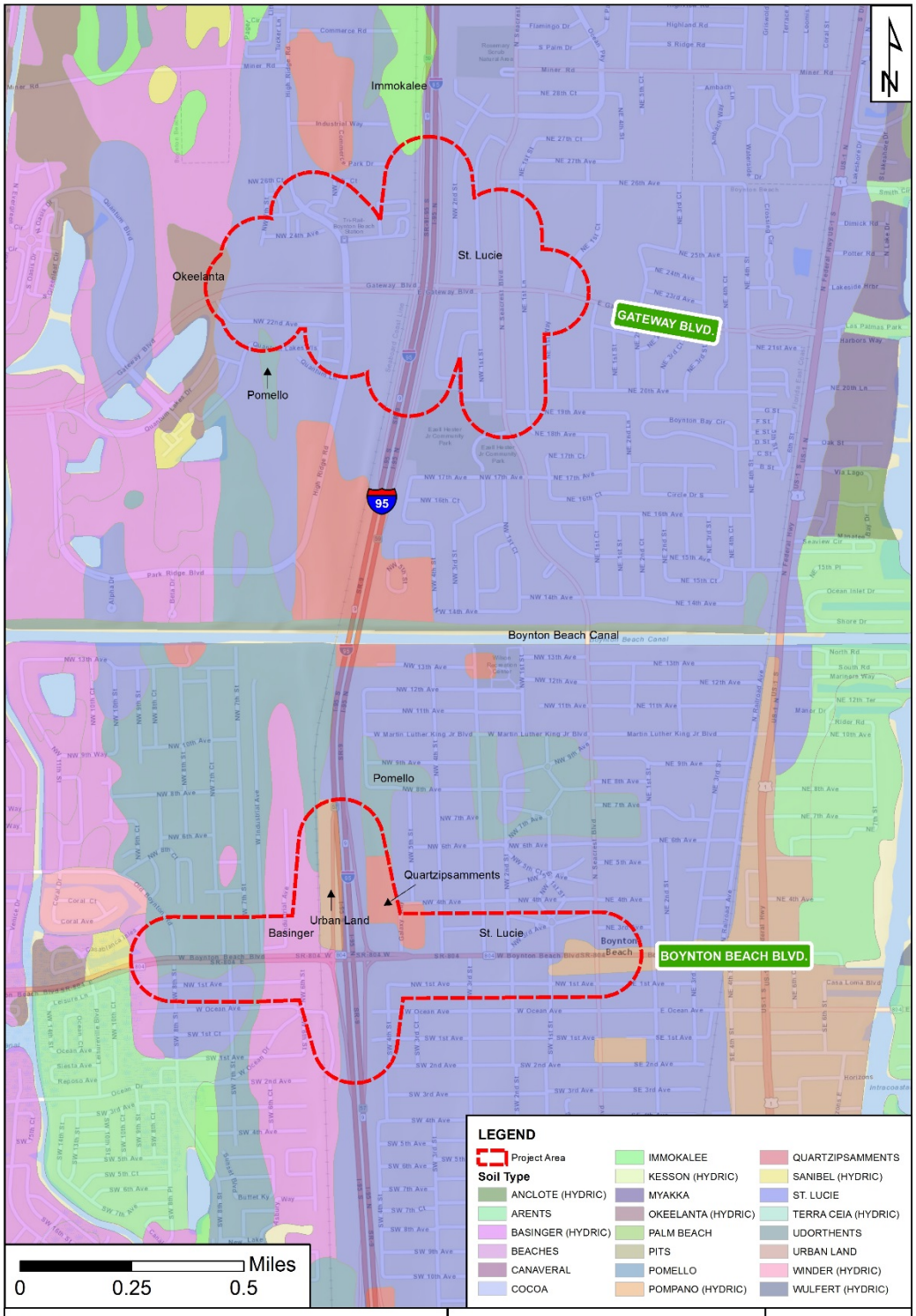
The primary soil type within the Gateway Boulevard Interchange project area is St. Lucie-Paola-Urban Land Complex, 0-8 percent slopes (Excessively Drained), some small areas of Okeelanta Muck (Very poorly drained), and Immokalee Fine Sand (Poorly Drained). The primary soil type within the Boynton Beach Boulevard Interchange project area is St. Lucie-Paola-Urban Land Complex, 0-8 percent slopes (Excessively Drained) and Basinger Fine Sand (Poorly Drained), as well as small portions of Pomello Fine Sand, 0 to 5 percent slopes (Moderately Well Drained), Quartzipsamments, Shaped, 0 to 5 percent slope (Well Drained), and Urban Land. Soil types within the project areas are listed in **Table 4** below. The existing Natural Resources Conservation Service (NRCS) soils map for the project area is shown in **Figure 3**.

According to the ETDM Screening tool, hydric soils exist within the project areas. There are two soils with a hydric component based on the *Hydric Soils Handbook of Florida*, 1995. The first is Okeelanta Muck, which meets the saturation and ponding criteria and is present along the western portions of the Gateway Boulevard Interchange project area. Basinger Fine Sand, which meets the saturation criteria, is located within the western portion of the Boynton Beach Boulevard Interchange project area.

Table 4 Soil Types within the Boynton Beach Boulevard Interchange and Gateway Boulevard Interchange Project Areas

Soil Type	Slope	Drainage Class	Acreage
Basinger Fine Sand (Hydric)	---	Poorly Drained	33.77
Immokalee Fine Sand	---	Poorly Drained	0.78
Okeelanta Muck (Hydric)	---	Very Poorly Drained	3.11
Pomello Fine Sand	0 - 5 Percent Slopes	Moderately Well Drained	26.87
Quartzipsamments, Shaped	0 - 5 Percent Slopes	Well Drained	8.80
St. Lucie-Paola-Urban Land Complex	0 - 8 Percent Slopes	Excessively Drained	318.84
Urban Land	---	---	17.76

Source: NRCS, 2012


N
Immokalee
St. Lucie
Okeelanta
GATEWAY BLVD.
Pomello
95
Boynton Beach Canal
Pomello
Quartzipsamments
Urban Land
Basinger
St. Lucie
Boynton Beach
BOYNTON BEACH BLVD.
LEGEND
Project Area
Soil Type
ANCLOTE (HYDRIC)
ARENTS
BASINGER (HYDRIC)
BEACHES
CANAVERAL
COCOA
IMMOKALEE
KESSON (HYDRIC)
MYAKKA
OKEELANTA (HYDRIC)
PALM BEACH
PITS
POMELLO
POMPANO (HYDRIC)
QUARTZIPSAMMENTS
SANIBEL (HYDRIC)
ST. LUCIE
TERRA CEIA (HYDRIC)
UDORTHENTS
URBAN LAND
WINDER (HYDRIC)
WULFERT (HYDRIC)
Miles
0
0.25
0.5
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SOILS MAP
Source: NRCS, 2012
FIGURE 3

5. Wetland Assessment

As part of the PD&E Study, wetlands and surface waters within the project area were identified and assessed in accordance with 33 CFR Part 325 and 332, 40 CFR Part 230, and Section 373.4137, Florida Statutes (FS), and the PD&E Manual, *Part 2, Chapter 18 - Wetlands and Other Surface Waters* (FDOT, 2016). The objectives included the identification and assessment of wetlands and other surface waters that could potentially be impacted by the project. Measures to avoid and minimize potential impacts and to mitigate for unavoidable impacts will be developed, where necessary.

5.1 Study Methodology

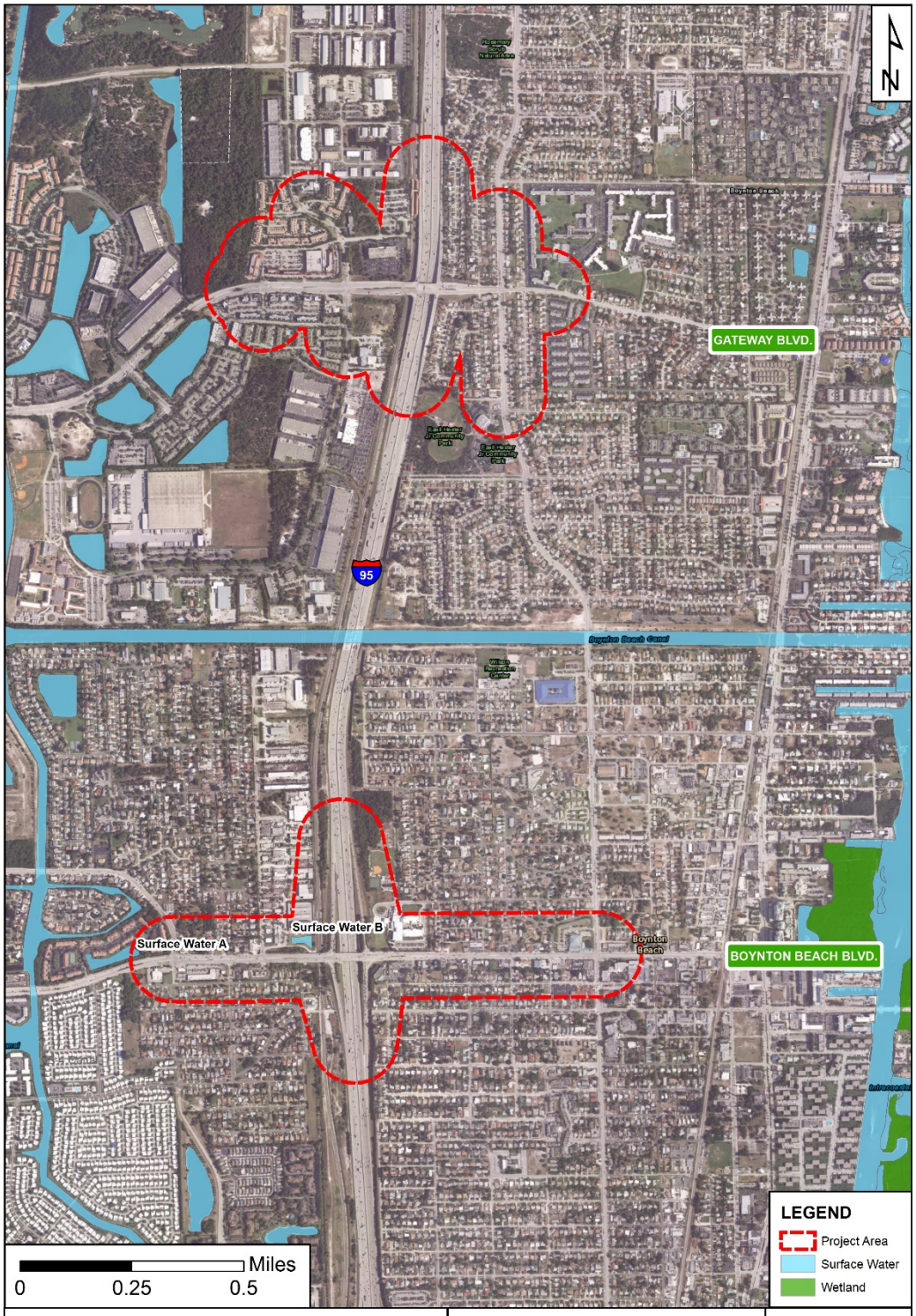
The project areas were evaluated for the presence of wetlands and other surface waters. The project area encompasses a 500-foot buffer surrounding the proposed interchange improvements. Study methodology included reviews of the Environmental Technical Advisory Team (ETAT) comments, literature reviews, agency database searches, agency coordination, GIS analyses, and field reviews. The GIS analysis utilized the 500-foot buffer of the proposed interchange improvements for review of natural resources. Field reviews were conducted in August 2015, April 2016, and January 2017. Potential impacts associated with each of the alternatives were evaluated and quantified. Wetlands and other surface waters that are impacted are named and mapped.

Standard federal and state definitions were utilized for the identification of wetlands in the project areas per FDOT and FHWA guidance. Characteristics of hydric soils, hydrophytic vegetation, and wetland hydrology are pertinent factors in all of these definitions.

5.2 Existing Wetlands and Other Surface Waters

The ETDM tool, NWI (2014), and field reviews all confirmed the absence of any natural wetland habitat within the Gateway Boulevard Interchange or Boynton Beach Boulevard Interchange project areas. Despite there being no natural wetlands within the project areas, there are several existing storm water features and roadside swales throughout the project areas. **Figure 4** depicts wetlands and other surface waters in the vicinity of Boynton Beach Boulevard Interchange and Gateway Boulevard Interchange.

No natural wetland habitat exists within 500 feet of the Gateway Boulevard Interchange or Boynton Beach Boulevard Interchange project areas. The ETDM tool, the 2014 NWI, and three field reviews, conducted in August 2015, April 2016, and January 2017, confirmed these findings. There are, however, existing storm water features throughout the project areas. During the field reviews and a desktop review of aerial imagery, two surface waters (Surface Waters A and B), which are part of existing storm water facilities, were identified within the Boynton Beach Boulevard Interchange project area. **Figure 4** depicts wetlands and other surface waters within, and adjacent to, the Boynton Beach Boulevard Interchange and Gateway Boulevard Interchange. The Surface Waters A and B are man-made systems that are highly affected by their close proximity to heavily traveled roads and other anthropogenic activities from the adjacent residential and industrial areas.



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SR 9/I-95 at Gateway Boulevard Interchange
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WETLANDS AND OTHER SURFACE WATERS LOCATION MAP
Source: NWI, 2014

FIGURE 4

Surface Waters within the Study Area

Surface Water A

FLUCFCS Code: 5300 Reservoir

NWI Code: PUBHx Palustrine, Unconsolidated Bottom, Permanently Flooded, Excavated

Surface Water A (**Photo 1**) is a small (1.6 acre), palustrine, freshwater pond bordered by the Casablanca Isles Condominium Residences to the north, east, and west, and Boynton Beach Boulevard to the south. A fraction of Surface Water A, approximately 0.1 acres is located within the Boynton Beach Boulevard Interchange project area.

Surface Water A was designed to provide water quality treatment, flood attenuation, and limited wildlife habitat functions. The wildlife habitat function of this surface water has been detrimentally impacted by the urbanization of the surrounding area. Surface Water A provides limited forage and nesting habitat for small mammals, birds, reptiles, and amphibians due to its highly urbanized surroundings. Anticipated wildlife usage would include wading birds and water fowls. Iguanas were observed in the surrounding trees during the January 2017 field visit. No viable wildlife corridor exists because development and heavily traveled roadways surround the wetland.

Photo 1. Surface Water A, south of Boynton Beach Boulevard, on the east side of the surface water facing southwest

Surface Water B

FLUCFCS Code: Mapped as 1400 Commercial and Services

NWI Code: PUBHx Palustrine, Unconsolidated Bottom, Permanently Flooded, Excavated

Surface Water B (**Photo 2**) is a small (0.6 acre), constructed storm water feature that lacks hydrophytic vegetation and is dominated by non-native turf grasses that appear to be regularly mowed. Surface Water B is associated with the Public Storage facility immediately north of Boynton Beach Boulevard and west of I-95. A SFWMD general permit was issued in June 7, 1990 for the parcel that includes the storm water feature and Public Storage facility (General Permit 50-02325-S).

Surface Water B was designed to provide water quality treatment, flood attenuation, and limited wildlife habitat functions. The wildlife habitat function of this surface water has been detrimentally impacted by the urbanization of the surrounding area. Surface Water B provides limited benefit to wildlife as water is not a regular occurrence and the area is open with no refuge. No viable wildlife corridor exists because development, roads, and the CSX Tri-Rail railroad surround the wetland.

Photo 2. Surface Water B, north of Boynton Beach Boulevard, on the west side of the surface water facing northeast

Previously Permitted Ditches and Swales

FLUCFCS Code: Mapped as 1400 Commercial and Services

Intermittent roadside ditches and swales (**Photo 3**) are also present within the right-of-way along the east and west side of I-95. These features are associated with previous Environmental Resource Permits 50-04473-P and 50-03485-S, and are located within both project areas. Based on the design plans associated with these permits, roadside and median swales were part of the I-95 drainage design. These features are not identified in provided maps because they are associated with previous Environmental Resource Permits and were part of the I-95 drainage design. These upland cut, man-made ditches provide very little support to neighboring biologic communities due to their highly urbanized and disturbed nature.

Photo 3. Roadside swale, on the east side of I-95 facing south

5.3 Potential Pond Sites

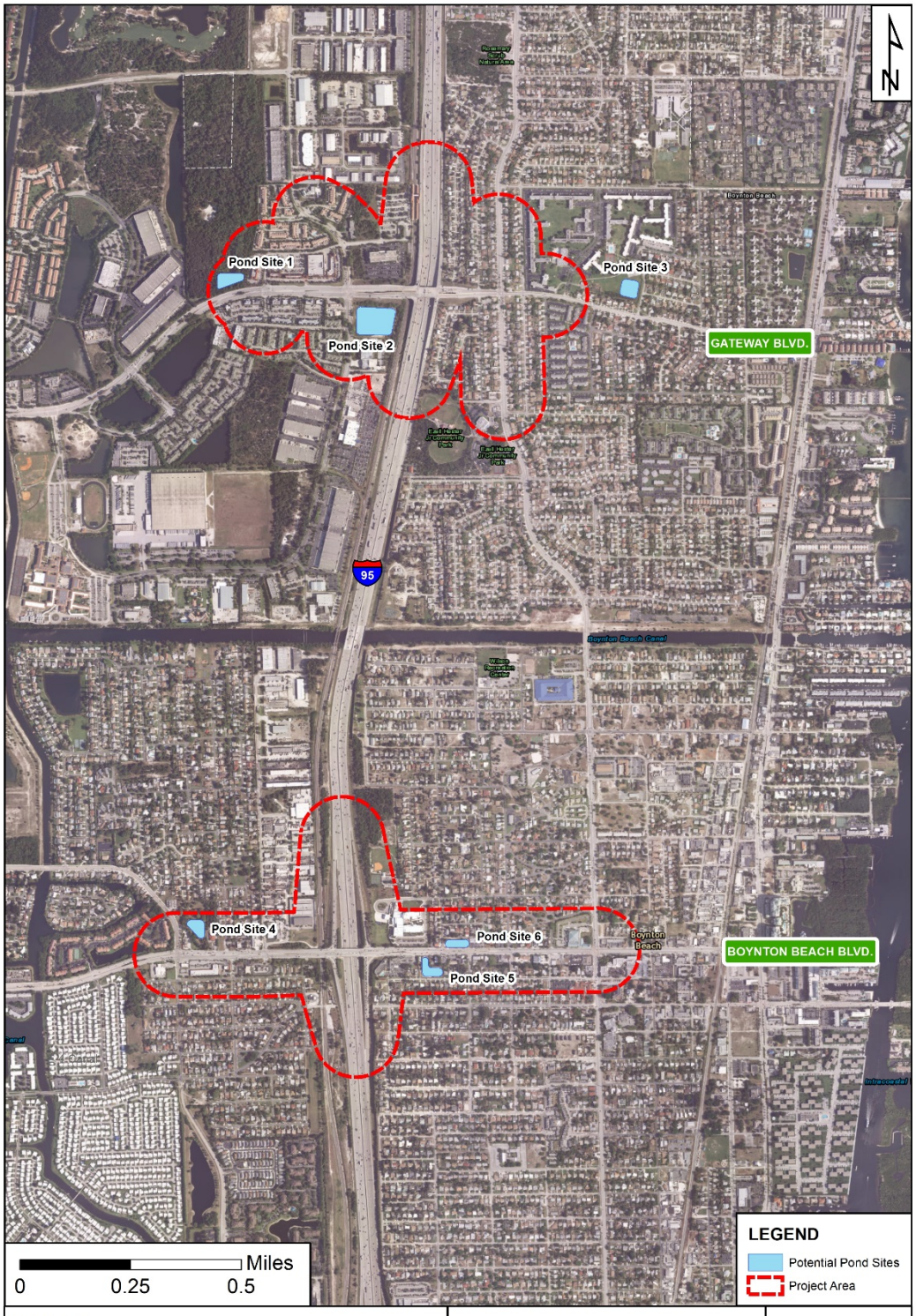
Six potential pond sites are being evaluated within and adjacent to the project areas. The following discusses the six potential pond sites and their potential impacts to wetlands. **Figure 5** depicts the proposed pond sites. For additional information regarding the potential pond sites, see the *Pond Siting Report*.

Potential Pond Site 1

FLUCFCS Code: 4240 Melaleuca

Pond Site 1 (**Photo 4**) is located immediately north of Gateway Boulevard and west of the Quantum Village Shopping Plaza. This potential pond site is 0.95 acre and is located entirely within Melaleuca, FLUCFCS 4240 (SFWMD, 2011). Vegetation is overgrown and consists of Brazilian pepper (*Schinus terebinthifoluis*), saw palmetto (*Serenoa repens*), carrotwood (*Cupainiopsis anacardioides*), longleaf pine (Pinus palustris), and multiple vine species. This potential pond site is adjacent to Melaleuca (FLUCFCS 4240) to the west, Pine Flatwoods (FLUCFCS 4110) to the north, and Commercial and Services (FLUCFCS 1400) to the east. The potential pond site is not in or adjacent to any wetlands.

Photo 4. Potential Pond Site 1, north of Gateway Blvd, on the south side of the potential pond site facing north



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POTENTIAL POND SITES LOCATION MAP

FIGURE 5

Potential Pond Site 2

FLUCFCS Code: 1400 Commercial and Services

Pond Site 2 (**Photo 5**) is located immediately south of Gateway Boulevard and west of I-95. This potential pond site is 3.27 acres and is within a vacant area that is classified as Commercial and Services, (FLUCFCS 1400). The dominant vegetation includes Brazilian pepper, sabal palm (*Sabal palmetto*), beach sunflower (*Helianthus debilis*), broomsedge bluestem (*Andropogon virginicus*), prickly pear (*Opuntia sp.*), and other weedy groundcover. This potential pond site is surrounded entirely by Commercial and Services (FLUCFCS 1400) and Transportation (FLUCFCS 810) land uses. The potential pond site is not in or adjacent to any wetlands.

Photo 5. Potential Pond Site 2, south of Gateway Boulevard, in the center of the potential pond site facing north

Potential Pond Site 3

FLUCFCS Code: 1340 Multiple Dwelling Units, High Rise <Three stories or more>

Pond Site 3 (**Photo 6**) is located east of I-95 and north of Gateway Boulevard, west of NE 2nd Court. This potential pond site is 0.94 acre and is within an area classified as Multiple Dwelling Units, High Rise <Three stories or more>, (FLUCFCS 1340). This area is to the south of and associated with Village Royale on the Green East Club House Business Office. The dominant vegetation consists of St. Augustine grass (*Stenotaphrum secundatum*). This potential pond site is surrounded entirely by Multi-Family (FLUCFCS 1340) and Single Family (FLUCFCS 1210) residential land use. The potential pond site is not in or adjacent to any wetlands.

Photo 6. Potential Pond Site 3, north of Gateway Boulevard, on the north side of the potential pond site facing southwest

Potential Pond Site 4

FLUCFCS Code: 1210 Fixed Single Family Units and 1400 and Commercial and Services

Pond Site 4 (**Photo 7**) is located north of Boynton Beach Boulevard and east of Old Boynton Road. This potential pond site is 0.75 acre and is within a vacant area that is classified as Fixed Single Family Units, (FLUCFCS 1210) and Commercial and Services, (FLUCFCS 1400). The main vegetation type is maintained Bahia grass (*Paspalum notatum*), sea grape (*Coccoloba uvifera*), and a Ficus species. This potential pond site is adjacent to Single Family (FLUCFCS 1210) and Multi-Family (FLUCFCS 1330). The potential pond site is not in or adjacent to any wetlands.

Photo 7. Potential Pond Site 4, north of Boynton Beach Boulevard, on the west side of the potential pond site facing northeast

Potential Pond Site 5

FLUCFCS Code: 1210 Fixed Single Family Units

Pond Site 5 (**Photo 8**) is located south of Boynton Beach Boulevard and north of NW 1st Avenue, west of SW 2nd Street. This potential pond site is 0.74 acre and is within a vacant parcel classified as Fixed Single Family Units, (FLUCFCS 1210). The main vegetation type is Bahia grass. This potential pond site is surrounded by Single Family (FLUCFCS 1210) and Commercial and Services (FLUCFCS 1400). The potential pond site is not in or adjacent to any wetlands.

Photo 8. Potential Pond Site 5, south of Boynton Beach Boulevard, on the south side of the potential pond site facing northeast

Potential Pond Site 6

Pond Site 6 (**Photo 9**) is located north of Boynton Beach Boulevard and east of NW 4th Street. This pond site is 0.56 acre and is within a vacant parcel classified as Fixed Single Family Units (FLUCFCS 1210). The main vegetation type is turf grass and other weedy grass species. This potential pond site is surrounded by Single Family (FLUCCS 1210) land use. The potential pond site is not in or adjacent to any wetlands.

Photo 9. Potential Pond Site 6, north of Boynton Beach Boulevard, on the west side of the potential pond site facing east

6. Potential Wetland Impacts of Alternatives

The following sections discuss the direct impacts (loss of a resource), indirect impacts (changes in function or quality of a resource), and cumulative impacts (historical, project-related, and foreseeable impacts) to other surface waters. No wetlands are present in the project corridor.

6.1 Practicable Measures to Avoid and Minimize Impacts

All alternatives proposed for Gateway Boulevard Interchange and Boynton Beach Boulevard Interchange avoid wetland impacts. No wetlands or surface waters will be impacted by any of the proposed alternatives. The recommended preferred alternatives for the Gateway Boulevard Interchange and Boynton Beach Boulevard Interchange, discussed more in **Section 6.2**, have the least amount of ROW impacts with the exception of the No-Build Alternative.

6.2 Direct Effects

The project area is highly urbanized with several anthropogenic factors contributing to the quality of the remaining natural habitat. The proposed improvements associated with the Build Alternatives would require a minimal amount of additional ROW. The recommended preferred alternative for the project areas was chosen by FDOT on January 26, 2017. The Streamlined Concept Development Alternative was chosen for the Boynton Beach Boulevard Interchange and the Single Point Urban Interchange Alternative was chosen for the Gateway Boulevard Interchange. These two options require the least amount of ROW acquisitions in comparison to other alternatives proposed, with the exception of the No-Build Alternative. The ROW and wetland impacts per evaluated alternatives are listed in **Table 5**.

Table 5 Right-of-Way and Wetland Impacts Per Alternative

Evaluation Factors	No Build Alternative	Concept Development Alternative	Streamlined Concept Development Alternative	Single Point Urban Interchange (SPUI) Alternative
I-95 at Boynton Beach Boulevard Interchange				
Required Right of Way (Acres)	0	1.39	0.82	0.82
Wetlands (Acres)	0	0	0	0
I-95 at Gateway Boulevard Interchange				
Required Right of Way (Acres)	0	2.35	2.28	2.07
Wetlands (Acres)	0	0	0	0

ROW acquisitions for the Boynton Beach Boulevard Interchange potential pond sites vary from 0.56 acre to 3.27 acres (**See Table 6**). All six potential pond sites avoid wetland and surface water impacts.

Table 6 Pond Site Right-of-Way Requirements

Evaluation Factors	Pond Site 1	Pond Site 2	Pond Site 3	Pond Site 4	Pond Site 5	Pond Site 6
Required Right of Way (Acres)	0.95	3.27	0.94	0.75	0.74	0.56

No wetlands exist within the Gateway Boulevard Interchange or Boynton Beach Boulevard Interchange project areas; therefore, no impacts to wetlands are anticipated. Surface waters exist within, and adjacent to, the project alternative footprints as constructed stormwater features. No impacts to surface waters is anticipated. Previously permitted ditches that were part of the I-95 drainage design are present on both sides of I-95. Impacts to roadside swales and ditches is anticipated to be less than a half an acre. The roadside swales and ditches impacted were built in uplands, are less than a half an acre, and do not provide significant habitat for threatened and endangered species. Per the SFWMD Basis of Review, Section 10.2.2.1, these features classified as “other surface waters” normally would not require mitigation.

6.3 Indirect and Cumulative Impacts

"Indirect (secondary) effects" are those impacts that are linked and causally related to the proposed action. They include temporary and permanent indirect effects. For transportation projects, indirect impacts typically include any disturbance to the areas adjacent to the project area. These impacts include short-term impacts associated with road construction activities, as well as, long-term impacts.

The Florida Fish and Wildlife Conservation Commission (FFWCC) commented in the ETDM for both Boynton Beach Boulevard Interchange and Gateway Boulevard Interchange that there is the potential for water quality degradation due to increased storm water runoff into drainage canals and ultimately into the Lake Worth Lagoon as a result of this project. Significant hydrological and water quality (e.g., chemical, physical, and biological properties) impacts are not expected to occur as a result of the proposed project because the proposed improvements are to an existing facility. In addition, the runoff from any proposed impervious surfaces associated with the roadway improvements will be treated in accordance with SFWMD stormwater permitting requirements.

A "cumulative impact", as defined by the Council of Environmental Quality Regulation (40 CFR 1508.7), is "the impact on the environment which results from the incremental impacts of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (federal or non-federal) or person undertakes such other actions." No cumulative impacts to the project areas are anticipated due to the highly developed nature of the area along I-95 in Palm Beach County.

7. Regulatory Agencies: Coordination and Permitting

7.1 Environmental Technical Advisory Team Comments

As part of the ETDM process, project information was distributed to the US Army Corps of Engineers (USACE), US Environmental Protection Agency (USEPA), Florida Department of Environmental Protection (FDEP), SFWMD, US Fish and Wildlife Service (USFWS), FFWCC, National Marine Fisheries (NMFS), and other governmental agencies. Full agency responses are included in **Appendix B** (SR-9/I-95 at Gateway Boulevard Interchange) and **Appendix C** (SR-9/I-95 at Boynton Beach Boulevard Interchange). The following is a summary of the ETAT comments and descriptions of the possible effects of the alternatives.

US Army Corps of Engineers

The USACE ETDM comments were received on August 18, 2014 for the Gateway Boulevard Interchange and Boynton Beach Boulevard Interchange projects. "No degree of impact" was assigned by the regulatory agency. USACE commented on the potential need for a nationwide permit if minor work in the water of the United States occurs, including existing storm water treatment areas, ditches, or canals.

National Marine Fisheries Service

The NMFS ETDM comments were received on August 12, 2014 for the Gateway Boulevard Interchange and Boynton Beach Boulevard Interchange projects. "No degree of impact" was assigned by the regulatory agency for the Gateway

Boulevard Interchange project area and a "minimal" degree of impact was assigned to the Boynton Beach Boulevard Interchange project area. Comments provided by NMFS were the same for each interchange project area and noted that the proposed work would not impact areas that support EFH; and therefore, would not require an EFH assessment.

South Florida Water Management District

The SFWMD ETDM comments were received on August 18, 2014 for the Gateway Boulevard Interchange and Boynton Beach Boulevard Interchange projects. "No degree of impact" was assigned by the regulatory agency. SFWMD commented that existing Environmental Resource Permit (ERP) permits cover portions of the project area and that a new ERP Permit, and/or modification to an existing permit, would be necessary. A comment was also made regarding the Boynton Beach Boulevard Interchange stating a Water Use Permit may be required.

Florida Department of Environmental Protection

The FDEP ETDM comments were received on November 4, 2014 for the Gateway Boulevard Interchange project and on August 22, 2014 for the Boynton Beach Boulevard Interchange project. "No degree of impact" was assigned by the regulatory agency. FDEP commented that 0.2 acre of palustrine wetlands exist within the 500-foot Gateway Boulevard Interchange project buffer zone and 0.1 acre of palustrine wetlands exist within the 500-foot Boynton Beach Boulevard Interchange project buffer zone. The comments stated that if a new impervious area is proposed, an ERP would likely be required from SFWMD for storm water management at the site.

7.2 Wetland Permitting and Functional Loss

A review of available permit agency files was conducted to determine if any permits have been issued for this segment of I-95. Intermittent roadside ditches and swales, which are present within the project area ROW along I-95, are associated with previous Environmental Resource Permits (50-04473-P and 50-03485-S). Based on the design plans associated with these permits, roadside and median swales were part of the I-95 drainage design. During the design phase, permits and other authorizations will be required. Permits from the USACE and the SFWMD are anticipated due to surface water impacts. Existing ERPs will have to be modified or a new ERP will be needed from the SFWMD.

Permits are required for any dredging or filling activities in wetlands and other surface waters. The roadside swales and ditches impacted were built in uplands, impacts are anticipated to be less than a half an acre, and do not provide significant habitat for threatened and endangered species. Per the SFWMD Basis of Review, Section 10.2.2.1, these surface waters normally would not require mitigation.

It is anticipated that the following permits may be required:

- USACE Nationwide Permit,
- SFWMD General Environmental Resource Permit, and
- FDEP Generic Permit for Stormwater Discharge from Large and Small Construction Activities (CGP).

8. Conclusions

The project footprint and potential pond sites for the Gateway Boulevard and Boynton Beach Boulevard Interchange were analyzed for potential wetland and other surface waters involvement in accordance with 33 CFR Part 325 and 332, 40 CFR Part 230, and Section 373.4137, FS, and the PD&E Manual, Part 2, Chapter 18 – Wetlands and Other Surface Waters (FDOT, 2016). The study methodology included reviews of the ETAT comments, literature reviews, agency database searches, agency coordination, GIS analyses, and field reviews (August 2015, April 2016, and January 2017). All ETAT comments have been reviewed and addressed.

No natural wetlands exist within the study area that meet the criteria (hydrophytic vegetation, hydric soil and/or wetland hydrology) required by the State of Florida (by virtue of F.A.C 62-340) or the USACE (by virtue of Section 404 of the Clean Water Act of 1972) to declare an area as a wetland.

8.1 Commitments

No wetland impacts are anticipated as part of this project, therefore, FDOT has no commitments regarding wetlands. To minimize the potential for any that adverse impacts to wetlands and/or surface waters in the vicinity of the project areas, the FDOT will implement the following:

- Dewatering will not occur adjacent to wetlands unless measures are implemented to avoid impact (i.e., draw-down) to these sensitive areas

9. References

Florida Department of Transportation. Florida Land Use, Cover, and Forms Classification System (FLUCFCS), 3rd Edition (1999).

Florida Department of Transportation. May 27, 2015. Efficient Transportation Decision Making Programming Screen Report No. 14180 – SR-9/I-95 at Boynton Boulevard Interchange.

Florida Department of Transportation. November 24, 2014. Efficient Transportation Decision Making Programming Screen Report No. 14181 – SR-9/I-95 at Gateway Boulevard Interchange.

Florida Department of Transportation. April, 2013. *Project Development and Environment Manual, Part 2, Chapter 18 – Wetlands.*

Florida Association of Environmental Soil Scientists. *Hydric Soils of Florida Handbook*. 1995. P.O. Box 357025 Gainesville, FL 32635.

South Florida Water Management District. April, 2010. *Canals in South Florida: A Technical Support Document.*

US Fish and Wildlife Service National Wetland Inventory GIS Database, 2014.

Appendix A

Concept Plans & Alternatives Evaluation Matrix

Figure 6: Boynton Beach Boulevard Interchange Alternative 1 – CDA

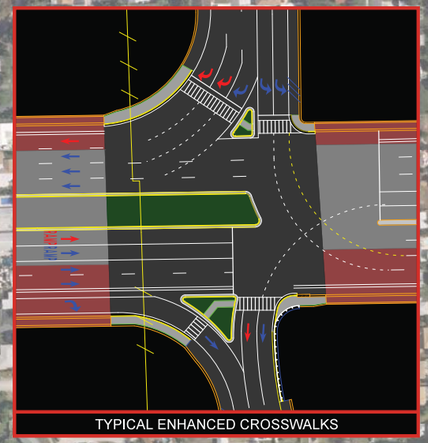
Figure 7: Boynton Beach Boulevard Interchange Alternative 2 – Streamlined CDA

Figure 8: Boynton Beach Boulevard Interchange Alternative 3 – SPUI

Figure 9: Gateway Boulevard Interchange Alternative 1 – CDA

Figure 10: Gateway Boulevard Interchange Alternative 2 – Streamlined CDA

Figure 11: Gateway Boulevard Interchange Alternative 3 - SPUI



SEE INSET FOR NB I-95 ON RAMP

LEGEND
- PROPERTY LINE
- EXISTING R/W
- PROPROSED R/W
- EXISTING LIMITED ACCESS R/W
- PROPOSED LIMITED ACCESS R/W
- EXISTING ROADWAY
- PROPOSED ROADWAY
- EXISTING BRIDGE
- PROPOSED BRIDGE
- EXISTING LANES
- PROPOSED LANES

OLD BOYNTON ROAD
BEGIN PROJECT
BOYNTON BEACH BOULEVARD
WENDYS
BP
7-ELEVEN
GATEWAY CENTRE
MEDICAL OFFICES
NW 1ST AVENUE
W OCEAN AVENUE
SW 1ST COURT
NW 8TH STREET
NW 7TH COURT
NW 7TH STREET
W INDUSTRIAL AVENUE
INDUSTRIAL AVENUE
South Florida Rail Corridor/CSX Railroad
I-95
804
1
2
3
4
5
6
7
8
9
NW 4TH AVENUE
GALAXY ELEMENTARY SCHOOL
NW 4TH STREET
NW 3RD STREET
NW 2ND STREET
NW 3RD COURT
NW 1ST STREET
LLOYD'S PLAZA
THE INN AT BOYNTON BEACH
MARATHON GAS
FIRST BAPTIST CHURCH OF BOYNTON BEACH
US POST OFFICE
SEACREST BOULEVARD
END PROJECT

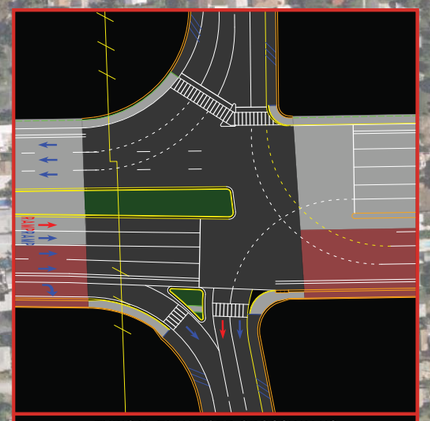
North
NOT TO SCALE

PD&E Study
SR 9/I-95 at SR-804/Boynton Beach Boulevard Interchange
SR 9/I-95 at Gateway Boulevard Interchange
FPID Nos.: 435804-1-22-01; 231932-1-22-01
ETDM Nos.: 14180 and 14181

FDOT

SR 9/I-95 at SR 804/Boynton Beach Boulevard Interchange
Alternative 1 - Conceptual Development Alternative (CDA)

Figure 6



TYPICAL ENHANCED CROSSWALKS

SEE INSET FOR NB I-95 ON RAMP

NB I-95 ON RAMP

LEGEND

- PROPERTY LINE
- EXISTING R/W
- PROPOSED R/W
- EXISTING LIMITED ACCESS R/W
- PROPOSED LIMITED ACCESS R/W
- EXISTING ROADWAY
- PROPOSED ROADWAY
- EXISTING BRIDGE
- PROPOSED BRIDGE
- EXISTING LANES
- PROPOSED LANES

OLD BOYNTON ROAD
BEGIN PROJECT
BOYNTON BEACH BOULEVARD
804
7-ELEVEN
GATEWAY CENTRE
WENDYS
BP
MEDICAL OFFICES
NW 7TH COURT
NW 7TH STREET
W INDUSTRIAL AVENUE
INDUSTRIAL AVENUE
NW 1ST AVENUE
NW 8TH STREET
NW 7TH STREET
W OCEAN AVENUE
SW 1ST COURT
South Florida Rail Corridor/CSX Railroad
INTERSTATE 95
NW 4TH AVENUE
GALAXY ELEMENTARY SCHOOL
NW 4TH STREET
NW 3RD STREET
LLOYD'S PLAZA
NW 2ND STREET
NW 3RD COURT
NW 1ST STREET
FIRST BAPTIST CHURCH OF BOYNTON BEACH
SEACREST BOULEVARD
MARATHON GAS
US POST OFFICE
THE INN AT BOYNTON BEACH
END PROJECT
1
2
3
4

North
NOT TO SCALE

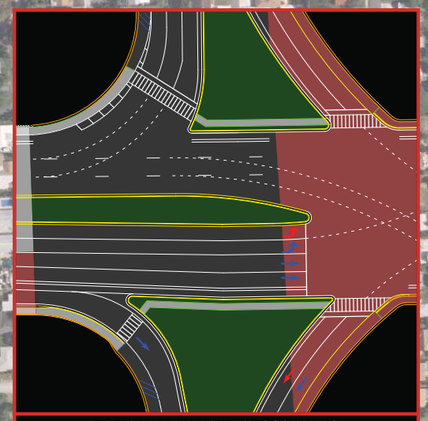
PD&E Study
SR 9/I-95 at SR-804/Boynton Beach Boulevard Interchange
SR 9/I-95 at Gateway Boulevard Interchange
FPID Nos.: 435804-1-22-01; 231932-1-22-01
ETDM Nos.: 14180 and 14181

FDOT

SR 9/I-95 at SR 804/Boynton Beach Boulevard Interchange

Alternative 2 - Streamlined CDA

Figure 7



SEE INSET FOR NB I-95 ON RAMP

LEGEND
- PROPERTY LINE
- EXISTING R/W
- PROPROSED R/W
- EXISTING LIMITED ACCESS R/W
- PROPOSED LIMITED ACCESS R/W
- EXISTING ROADWAY
- PROPOSED ROADWAY
- EXISTING BRIDGE
- PROPOSED BRIDGE
- EXISTING LANES
- PROPOSED LANES

OLD BOYNTON ROAD
BEGIN PROJECT
BOYNTON BEACH BOULEVARD
WENDYS
BP
7-ELEVEN
GATEWAY CENTRE
MEDICAL OFFICES
NW 8TH STREET
NW 7TH COURT
NW 7TH STREET
NW 1ST AVENUE
W OCEAN AVENUE
SW 1ST COURT
W INDUSTRIAL AVENUE
INDUSTRIAL AVENUE
South Florida Rail Corridor/CSX Railroad
804
95
1
NW 4TH AVENUE
GALAXY ELEMENTARY SCHOOL
NW 4TH STREET
NW 3RD STREET
NW 2ND STREET
NW 3RD COURT
NW 1ST STREET
LLOYD'S PLAZA
FIRST BAPTIST CHURCH OF BOYNTON BEACH
MARATHON GAS
US POST OFFICE
THE INN AT BOYNTON BEACH
SEACREST BOULEVARD
END PROJECT

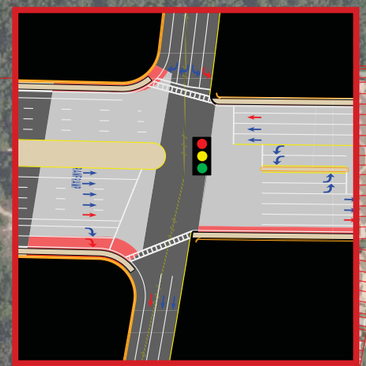
North
NOT TO SCALE

PD&E Study
SR 9/I-95 at SR-804/Boynton Beach Boulevard Interchange
SR 9/I-95 at Gateway Boulevard Interchange
FPID Nos.: 435804-1-22-01; 231932-1-22-01
ETDM Nos.: 14180 and 14181

FDOT

SR 9/I-95 at
SR 804/Boynton Beach Boulevard Interchange
Alternative 3 - Single Point Urban Interchange (SPUI)

Figure 8



LEGEND

- PROPERTY LINE
- EXISTING R/W
- PROPOSED R/W
- EXISTING LIMITED ACCESS R/W
- PROPOSED LIMITED ACCESS R/W
- PAVEMENT
- EXISTING BRIDGE
- PROPOSED BRIDGE
- EXISTING LANES
- PROPOSED LANES

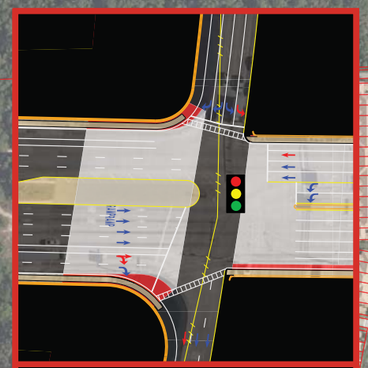
PD&E Study
SR 9/I-95 at SR-804/Boynton Beach Boulevard Interchange
SR 9/I-95 at Gateway Boulevard Interchange
FPID Nos.: 435804-1-22-01; 231932-1-22-01
ETDM Nos.: 14180 and 14181

FDOT

SR 9/I-95 at Gateway Boulevard Interchange Alternative 1 - Conceptual Development Alternative (CDA)

North
NOT TO SCALE

Figure 9



TYPICAL ENHANCED CROSSWALKS

1

2

3

LEGEND

- PROPERTY LINE
- EXISTING R/W
- PROPOSED R/W
- EXISTING LIMITED ACCESS R/W
- PROPOSED LIMITED ACCESS R/W
- PAVEMENT
- EXISTING BRIDGE
- PROPOSED BRIDGE
- EXISTING LANES
- PROPOSED LANES

PD&E Study
SR 9/I-95 at SR-804/Boynton Beach Boulevard Interchange
SR 9/I-95 at Gateway Boulevard Interchange
FPID Nos.: 435804-1-22-01; 231932-1-22-01
ETDM Nos.: 14180 and 14181

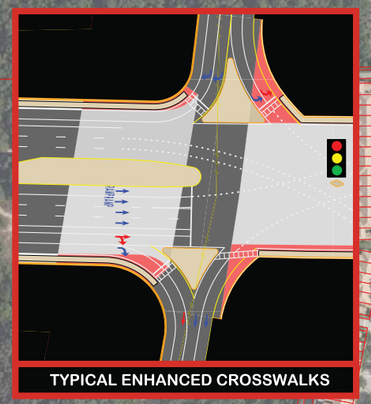
FDOT

SR 9/I-95 at Gateway Boulevard Interchange

Alternative 2 - Streamlined CDA

North
NOT TO SCALE

Figure 10



1

Commerce Park Dr
High Ridge Road
SOUTH FLORIDA RAIL CORRIDOR
CSX RR
SB EXIT RAMP
NB ENTRANCE RAMP
I-95
NE 1st Way
NW 1st Street
N Seacrest Blvd
QUANTUM VILLAGE
Quantum Village
QUANTUM TOWN CENTER
Gateway Blvd.
SB ENTRANCE RAMP
NW 21st St
NW 2nd St
NW 2nd Ct
NW 1st St
NE 1st Lane
NE 1st Way

LEGEND

- PROPERTY LINE
- EXISTING R/W
- PROPOSED R/W
- EXISTING LIMITED ACCESS R/W
- PROPOSED LIMITED ACCESS R/W
- PAVEMENT
- EXISTING BRIDGE
- PROPOSED BRIDGE
- EXISTING LANES
- PROPOSED LANES

North
NOT TO SCALE

PD&E Study
SR 9/I-95 at SR-804/Boynton Beach Boulevard Interchange
SR 9/I-95 at Gateway Boulevard Interchange
FPID Nos.: 435804-1-22-01; 231932-1-22-01
ETDM Nos.: 14180 and 14181

FDOT

SR 9/I-95 at Gateway Boulevard Interchange Alternative 1 - Single Point Urban Interchange (SPUI)

Figure 11

ALTERNATIVES EVALUATION MATRIX
I-95 at Boynton Beach Boulevard

Evaluation Factors	No Build Alternative	TSM&O[1]	Concept Development Alternative	Streamlined Concept Development Alternative	Single Point Urban Interchange (SPUI) Alternative
Engineering					
Meets Geometric Design Criteria	No	No	Yes	Some	Yes
Provides Current FDOT Standards for Bicycle Facilities	No	No	Yes	Yes	Yes
Provides Pedestrian Facilities	Yes	Yes	Yes	Yes	Yes
Improves Mobility	No	Some	Yes	Yes	Yes
Improves Traffic Operations	No	Some	Yes	Yes	Yes
Improves Safety	No	Some	Yes	Yes	Yes
Meets Purpose & Need	No	No	Yes	Yes	Yes
Physical Resource Impacts					
Residential Properties Impacted – Single Family	0	0	0	0	0
Residential Properties Impacted – Multifamily	0	0	1	1	1
Schools Impacted	0	0	1	1	1
Business Properties Impacted	0	0	21	14	14
Total Properties Impacted	**0**	**0**	**23**	**16**	**16**
Potential Relocations - Residential	0	0	1	1	1
Potential Relocations - Commercial	0	0	1	0	0
Contamination Sites Impacted	0	0	1	0	0
Required Right of Way (Acres)	0	0	1.207	0.644	0.644
Cultural and Natural Resource Impacts					
Improves Air Quality	No	Some	Yes	Yes	Yes
Noise Receptors[2]	None	None	TBD	TBD	TBD
Wetlands (acres)	0	0	0	0	0
Wildlife and Habitat	0	0	0	0	0
Archaeological Sites	0	0	0	0	0
Current and Previously Recorded Historic Structures To Avoid	0	2	2	2	2
Parks / Recreation (Section 4f)	0	0	0	0	0

ALTERNATIVES EVALUATION MATRIX
I-95 at Boynton Beach Boulevard

Evaluation Factors	No Build Alternative	TSM&O[1]	Concept Development Alternative	Streamlined Concept Development Alternative	Single Point Urban Interchange (SPUI) Alternative
Operational Improvement (Design Year 2040)					
Total Intersection Delay AM Peak Hour (minutes/vehicle)	10.75	8.45	4.75	4.77	4.33
Reduction in Delay from No-Build AM Peak Hour (percent)	-	**21.4%**	**55.8%**	**55.6%**	**59.7%**
Total Intersection Delay PM Peak Hour (minutes/vehicle)	8.68	7.27	5.47	4.82	4.45
Reduction in Delay from No-Build PM Peak Hour (percent)	-	**16.2%**	**37.0%**	**44.5%**	**48.7%**
Costs ($-millions)					
Roadway Construction (LRE Cost)	N/A	N/A	$32,914,899	$20,377,866	$47,478,774
Engineering/Design (10% of Construction)	N/A	N/A	$3,291,490	$2,037,787	$4,747,877
CEI (15% of Construction)	N/A	N/A	$4,937,235	$3,056,680	$7,121,816
Right-of-Way Acquisition	N/A	N/A	$18,600,000	$13,600,000	$13,600,000
TOTAL COST	**N/A**	N/A	**$59,743,624**	**$39,072,333**	**$72,948,467**

sec/veh – seconds per vehicle

1 Transportation Systems Management and Operations

2 Noise Impacts will be evaluated following selection of the Recommended Alternative

All public comments received will be considered during the PD&E Study

PRELIMINARY

ALTERNATIVES EVALUTATION MATRIX
I-95 at Gateway Boulevard

Evaluation Factors	No Build Alternative	TSM&O[1]	Concept Development Alternative	Streamlined Concept Development Alternative	Single Point Urban Interchange (SPUI) Alternative
Engineering					
Meets Geometric Design Criteria	No	No	Yes	Some	Some
Provides Current FDOT Standards for Bicycle Facilities	No	No	Yes	Yes	Yes
Provides Pedestrian Facilities	Yes	Yes	Yes	Yes	Yes
Improves Mobility	No	Some	Yes	Yes	Yes
Improves Traffic Operations	No	Some	Yes	Yes	Yes
Improves Safety	No	Some	Yes	Yes	Yes
Meets Purpose & Need	No	No	Yes	Yes	Yes
Physical Resource Impacts					
Residential Properties Impacted – Single Family	0	0	41	25	25
Residential Properties Impacted – Multifamily	0	0	1	1	1
Schools Impacted	0	0	0	0	0
Business Properties Impacted	0	0	11	7	7
Total Properties Impacted	**0**	**0**	**53**	**33**	**33**
Displacements - Residential	0	0	5	5	6
Displacements - Commercial	0	0	1	1	1
Contamination Sites Impacted	0	0	5	3	3
Required Right of Way (Acres)	0	0	2.37	2.28	2.07
Cultural and Natural Resource Impacts					
Improves Air Quality	No	Some	Yes	Yes	Yes
Noise Receptors[2]	No	No	TBD	TBD	TBD
Wetlands (acres)	0	0	0	0	0
Wildlife and Habitat	0	0	0	0	0
Archaeological Sites	0	0	0	0	0
Current and Previously Recorded Historic Structures To Avoid	0	0	1	1	1
Parks / Recreation (Section 4f)	0	0	0	0	0

ALTERNATIVES EVALUTATION MATRIX
I-95 at Gateway Boulevard

Evaluation Factors	No Build Alternative	TSM&O[1]	Concept Development Alternative	Streamlined Concept Development Alternative	Single Point Urban Interchange (SPUI) Alternative
Operational Improvement (Design Year 2040)					
Total Intersection Delay AM Peak Hour (minutes/vehicle)	11.00	8.24	3.49	3.99	3.28
Reduction in Delay from No-Build AM Peak Hour (percent)	-	**25.1%**	**68.3%**	**63.7%**	**70.2%**
Total Intersection Delay PM Peak Hour (minutes/vehicle)	8.02	6.79	3.02	3.38	2.85
Reduction in Delay from No-Build PM Peak Hour (percent)	-	**15.3%**	**62.3%**	**57.9%**	**64.5%**
Costs ($-millions)					
Roadway Construction	N/A	N/A	$19,946,597	$18,109,969	$20,545,855
Engineering/Design (10% of Construction)	N/A	N/A	$1,994,660	$1,810,997	$2,054,586
CEI (15% of Construction)	N/A	N/A	$2,991,990	$2,716,495	$3,081,878
Right-of-Way Acquisition	N/A	N/A	$13,000,000	$10,700,000	$10,100,000
TOTAL COST	**N/A**	**Low**	**$37,933,247**	**$33,337,461**	**$35,782,319**

sec/veh – seconds per vehicle

1 Transportation Systems Management and Operations

2 Noise Impacts will be evaluated following selection of the Preferred Alternative

All public comments received will be considered during the PD&E Study

PRELIMINARY

Appendix B

ETDM Agency Comments Project #14181 – SR-9/I-95 at Gateway Boulevard Interchange

Agency Environmental Comments

#14181 - SR-9/I-95 at Gateway Boulevard Interchange Submit Comment | Request Response | Watch Project

District: District 4 **Phase:** Programming Screen **Contact Information:** Gaspar Jorge Padron (850) 777-4320 gaspar.padron@dot.state.fl.us

Alternative #1

Project Effects Overview for Alternative #1

Issue	Degree of Effect	Organization	Date Reviewed
Social and Economic			
Land Use Changes	1 Enhanced	FL Department of Economic Opportunity	08/14/2014
Land Use Changes	3 Moderate	FDOT District 4	09/03/2014
Social	2 Minimal	US Environmental Protection Agency	09/06/2014
Social	2 Minimal	FDOT District 4	09/03/2014
Relocation Potential	4 Substantial	FDOT District 4	09/03/2014
Farmlands	0 None	Natural Resources Conservation Service	07/31/2014
Aesthetic Effects	2 Minimal	FDOT District 4	09/03/2014
Economic	2 Minimal	FDOT District 4	09/03/2014
Economic	0 None	FL Department of Economic Opportunity	08/14/2014
Mobility	1 Enhanced	FDOT District 4	09/03/2014
Cultural			
Historic and Archaeological Sites	3 Moderate	FL Department of State	08/14/2014
Recreation Areas	0 None	FL Department of Environmental Protection	09/04/2014
Recreation Areas	0 None	South Florida Water Management District	08/18/2014
Recreation Areas	0 None	US Environmental Protection Agency	09/06/2014
Recreation Areas	N/A N/A / No Involvement	National Park Service	08/01/2014
Natural			
Wetlands	0 None	US Army Corps of Engineers	08/18/2014
Wetlands	0 None	South Florida Water Management District	08/18/2014
Wetlands	0 None	FL Department of Environmental Protection	09/04/2014
Wetlands	2 Minimal	US Fish and Wildlife Service	07/28/2014
Wetlands	0 None	US Environmental Protection Agency	09/06/2014

Wetlands	0 None	National Marine Fisheries Service	08/12/2014
Water Quality and Quantity	2 Minimal	South Florida Water Management District	08/18/2014
Water Quality and Quantity	0 None	US Environmental Protection Agency	09/06/2014
Water Quality and Quantity	0 None	FL Department of Environmental Protection	09/04/2014
Floodplains	0 None	US Environmental Protection Agency	09/06/2014
Floodplains	0 None	South Florida Water Management District	08/18/2014
Wildlife and Habitat	2 Minimal	FL Fish and Wildlife Conservation Commission	08/14/2014
Wildlife and Habitat	2 Minimal	US Fish and Wildlife Service	07/28/2014
Coastal and Marine	0 None	National Marine Fisheries Service	08/12/2014
Coastal and Marine	0 None	South Florida Water Management District	08/18/2014
Physical			
Air Quality	2 Minimal	US Environmental Protection Agency	09/06/2014
Contamination	2 Minimal	FL Department of Environmental Protection	09/04/2014
Contamination	2 Minimal	US Environmental Protection Agency	09/06/2014
Contamination	0 None	South Florida Water Management District	08/18/2014
Navigation	N/A N/A / No Involvement	US Army Corps of Engineers	08/18/2014
Navigation	N/A N/A / No Involvement	US Coast Guard	07/24/2014
Special Designations			
Special Designations	0 None	South Florida Water Management District	08/18/2014
Special Designations	0 None	US Environmental Protection Agency	09/06/2014

ETAT Reviews: Social and Economic

Land Use Changes

Project Effect Comments

Coordinator Summary Degree of Effect: 3 *Moderate*
Response By: FDOT District 4 (11/20/2014)
Comments:

FDEO reported that the project is compatible with the development goals of the City of Boynton Beach. FDEO noted that the project is not located in an Area of Critical State Concern or within the Coastal High Hazard Area and does not encroach on a military base; however, since the project is located near public recreational features, impacts to Section 4(f) resources should be analyzed. The project is included in the FY 2014 - 2019 FDOT Work Program, the Strategic Intermodal System Cost Feasible Plan 2024 - 2040, the Palm Beach Metropolitan Planning Organization (MPO) FY 2015 - 2019 Transportation Improvement Program (TIP), and the Palm Beach County Comprehensive Plan (reflected on Map TE 14.1). It is not identified in the Palm Beach MPO Cost Feasible 2035 Long Range Transportation Plan (LRTP) or the State Transportation Improvement Program

(STIP). While the project is expected to accommodate expanding residential and industrial activities within the area, potential impacts to residential uses are anticipated as a result of additional right-of-way required for the improvements. Therefore, a Summary DOE of Moderate has been assigned to the Land Use Changes issue.

During the Project Development phase, public outreach will be conducted by FDOT District Four in coordination with the Palm Beach MPO and the City of Boynton Beach to obtain feedback from residents and businesses that may be impacted by the interchange improvement. FDOT District Four will also coordinate with the City of Boynton Beach and the Palm Beach MPO to ensure that 1) the project is included on the Future Transportation Map of the adopted City of Boynton Beach Comprehensive Plan and is consistent with the adopted Palm Beach MPO LRTP and 2) funding is identified for all future project phases in the TIP, LRTP, STIP, and FDOT SIS Cost Feasible Plan.

⊞ 1 **FL Department of Economic Opportunity (08/14/2014)**

⊞ 3 **FDOT District 4 (09/03/2014)**

The following organization(s) were expected to but did not submit comments for this alternative about potential direct effects in the Land Use Changes category: Not Available. Contact the ETDM Help Desk for assistance.

Back to Alternative #1

Social

Project Effect Comments

Coordinator Summary Degree of Effect: 2 *Minimal*
Response By: FDOT District 4 (11/20/2014)
Comments:

While access to residences and businesses could temporarily be affected and/or modified as a result of the interchange improvement, overall impacts on the social environment and community cohesion are anticipated to be limited as the project will accommodate the expanding residential and industrial uses within the vicinity of the interchange (supporting goals of both Palm Beach County and the City of Boynton Beach). However, given the fact that the project is in an area with minority and low-income households and a population deficient in English proficiency, a Summary DOE of Minimal has been assigned to the Social issue.

During the Project Development phase, public outreach will be conducted by FDOT District Four in coordination with the Palm Beach Metropolitan Planning Organization and the City of Boynton Beach to solicit input from the general public to ensure that both the social and transportation needs of the community are addressed through the project. To avoid and/or minimize potential impacts to the greatest extent practicable, FDOT District Four will also prepare an Air Quality Technical Memorandum (see Air Quality issue), Noise Study Report (see Noise issue), and Sociocultural Effects Evaluation (in accordance with Part 2, Chapter 9 of the FDOT PD&E Manual) with particular focus on civil rights and environmental justice considerations. It should additionally be noted that Limited English Proficiency (LEP) accommodations will be required during public outreach.

⊞ 2 **US Environmental Protection Agency (09/06/2014)**

⊞ 2 **FDOT District 4 (09/03/2014)**

The following organization(s) were expected to but did not submit comments for this alternative about potential direct effects in the Social category: Not Available. Contact the ETDM Help Desk for assistance.

Back to Alternative #1

Relocation Potential

Project Effect Comments

Coordinator Summary Degree of Effect: 4 *Substantial*
Response By: FDOT District 4 (11/20/2014)
Comments:

The proposed project is anticipated to require additional right-of-way along the northern and southern portions of Gateway Boulevard, both east and west of the interchange. The acquisition of new right-of-way has the potential to impact approximately eleven commercial businesses located within 1,000 feet to the west of the interchange (no relocations are anticipated) and twenty-seven residential units located within 1,000 feet to the east of the interchange (this may result in the relocation of up to twenty-four units). Further, access to businesses and residences could temporarily be affected and/or modified during project construction. For these reasons, a Summary DOE of Substantial has been assigned to the Relocation Potential issue.

A Conceptual Stage Relocation Plan will be prepared during the Project Development stage if relocations are determined to be necessary. Potential relocation effects should be assessed further during Project Development as more detailed and finalized project information regarding right-of-way needs becomes available. The proposed interchange improvements will be adjusted so as to avoid or minimize impacts to identified features.

⊞ 4 **FDOT District 4 (09/03/2014)**
The following organization(s) were expected to but did not submit comments for this alternative about potential direct effects in the Relocation Potential category: Not Available. Contact the ETDM Help Desk for assistance.

Back to Alternative #1

Farmlands

Project Effect Comments

Coordinator Summary Degree of Effect: 0 *None*
Response By: FDOT District 4 (11/20/2014)
Comments:

NRCS determined that there are no Prime, Unique or Locally Important Farmland soils within any of the project buffers. In addition, the project is located within the Miami Urbanized Area. According to Part 2, Chapter 28, Section 28-2.1 of the FDOT PD&E Manual, transportation projects situated within urbanized areas with no adjacent present or future agricultural lands are excluded from Farmland Assessments. Since the project is located within a designated urban area anticipated to continue to support residential and industrial uses, a Summary DOE of None has been assigned to the Farmlands issue.

⊞ 0 **Natural Resources Conservation Service (07/31/2014)**
The following organization(s) were expected to but did not submit comments for this alternative about potential direct effects in the Farmlands category: Not Available. Contact the ETDM Help Desk for assistance.

Back to Alternative #1

Aesthetic Effects

Project Effect Comments

Coordinator Summary Degree of Effect: 2 *Minimal*
Response By: FDOT District 4 (11/20/2014)
Comments:

The project is consistent with the area's future land use vision as it is expected to enhance access to the Quantum Park at Boynton Beach Development of Regional Impact and support growing residential and industrial activities. Given the urban nature of the surrounding project area, impacts to aesthetics/the existing visual environment should be limited. Therefore, a Summary DOE of Minimal has been assigned to the Aesthetic Effects issue.

During the Project Development phase, public outreach will be conducted by FDOT District Four in coordination with the Palm Beach Metropolitan Planning Organization and the City of Boynton Beach to solicit opinions and preferences from residents and businesses on potential project effects and general design concepts related to aesthetics.

⊞ 2 **FDOT District 4 (09/03/2014)**
The following organization(s) were expected to but did not submit comments for this alternative about potential direct effects in the Aesthetic Effects category: Not Available. Contact the ETDM Help Desk for assistance.

Back to Alternative #1

Economic

Project Effect Comments

Coordinator Summary Degree of Effect: 2 *Minimal*
Response By: FDOT District 4 (11/20/2014)
Comments:

By improving operational capacity and overall traffic operations, the project is intended to accommodate future travel demand as a result of expanding industrial and residential uses within the vicinity of the interchange. In addition, the improvements will enhance access to SR-9/I-95 (from the east and west) and other major transportation facilities and employment centers (including freight facilities) of Southeast Florida. While no business relocations are anticipated, access to residences and businesses could temporarily be affected and/or modified during construction. Therefore, a Summary DOE of Minimal has been assigned to the Economic issue.

During the Project Development phase, public outreach will be conducted by FDOT District Four in coordination with the Palm Beach Metropolitan Planning Organization and the City of Boynton Beach to solicit input from residents and businesses (located within the vicinity of the interchange) regarding potential economic enhancements/impacts (particularly access to businesses) as a result of the project.

⊞ 2 **FDOT District 4 (09/03/2014)**

⊞ 0 **FL Department of Economic Opportunity (08/14/2014)**
The following organization(s) were expected to but did not submit comments for this alternative about potential direct effects in the Economic category: Not Available. Contact the ETDM Help Desk for assistance.

Back to Alternative #1

Mobility

Project Effect Comments

Coordinator Summary Degree of Effect: 1 *Enhanced*
Response By: FDOT District 4 (11/20/2014)
Comments:

Through improved operational capacity and overall traffic operations, the proposed interchange improvement is anticipated to 1) accommodate future travel demand (thus achieving acceptable Levels of Service at the interchange), 2) allow SR-9/I-95 to continue to facilitate the north-south movement of local and regional traffic, 3) enhance access to SR-9/I-95 and other major transportation facilities and employment centers in Southeast Florida, 4) improve freight mobility, 5) enhance emergency evacuation and response times, and 6) reduce conflict points and the potential occurrence of collisions. Therefore, a Summary DOE of Enhanced has been assigned to the Mobility issue.

During the Project Development phase, public outreach will be conducted by FDOT District Four in coordination with the Palm Beach Metropolitan Planning Organization and the City of Boynton Beach to solicit community opinions and preferences, targeting input from the transportation disadvantaged population, regarding the project.

⊞ 1 **FDOT District 4 (09/03/2014)**
The following organization(s) were expected to but did not submit comments for this alternative about potential direct effects in the Mobility category: Not Available. Contact the ETDM Help Desk for assistance.

Back to Alternative #1

ETAT Reviews: Cultural

Section 4(f) Potential

Project Effect Comments

Coordinator Summary Degree of Effect: 2 *Minimal*
Response By: FDOT District 4 (11/20/2014)
Comments:

Potentially protected Section 4(f) resources within proximity to the interchange include a native preservation area associated with the Palm Beach County Children's Services Council building [although not considered a public park, a Section 4(f) Determination of Applicability (DOA) should be prepared and coordinated with FHWA] and the Ezell Hester, Jr. Community Center and Park. Access to these features could be temporarily affected during project construction. In addition, unrecorded cultural resources (eligible or potentially eligible for listing in the National Register of Historic Places) may exist since a comprehensive survey has not been conducted for the project area. For these reasons, a Summary DOE of Minimal has been assigned to the Section 4(f) Potential issue.

During Project Development, a Section 4(f) Determination of Applicability (DOA) will be conducted in coordination with FHWA (in accordance with Part 2, Chapter 13 of the FDOT PD&E Manual) to determine the extent of Section 4(f) involvement and focus any required documents on the avoidance and/or minimization of impacts.

No ETAT Reviews were submitted for the Section 4(f) Potential Issue.
The following organization(s) were expected to but did not submit comments for this alternative about potential direct effects in the Section 4(f) Potential category: Not Available. Contact the ETDM Help Desk for assistance.

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Historic and Archaeological Sites

Project Effect Comments

Coordinator Summary Degree of Effect: 3 *Moderate*
Response By: FDOT District 4 (11/20/2014)
Comments:

FDOS commented that there is one known significant resource in the project area (the Seaboard Air Line Railway); it has not been evaluated by the SHPO. FDOS also noted that since the project area has not been comprehensively surveyed, other resources of potential significance may be present. Due to the possible presence of cultural resources eligible or potentially eligible for listing in the National Register of Historic Places (NRHP) within the project area, a Summary DOE of Moderate has been assigned to the Historic and Archaeological Sites issue.

During Project Development, a Cultural Resource Assessment Survey will be conducted (in accordance with Part 2, Chapter 12 of the FDOT PD&E Manual) to determine the presence of historic, cultural and archeological resources in the area and evaluate their eligibility for listing in the NRHP. Any potential impacts to such resources will be avoided and/or minimized during the process.

⊞ 3 **FL Department of State (08/14/2014)**
The following organization(s) were expected to but did not submit comments for this alternative about potential direct effects in the Historic and Archaeological Sites category: Not Available. Contact the ETDM Help Desk for assistance.

Back to Alternative #1

Recreation Areas

Project Effect Comments

Coordinator Summary Degree of Effect: 0 *None*
Response By: FDOT District 4 (11/20/2014)
Comments:

While a native preservation area associated with the Palm Beach County Children's Services Council building (although not considered a public park, but has the potential to be a Section 4(f) resource) and the Ezell Hester, Jr. Community Center and Park are located within proximity to the interchange, no recreation areas/features are present within the 200-foot project buffer. No direct impacts to these resources are anticipated. For this reason, a Summary DOE of None has been assigned to the Recreation Areas issue.

An assessment of potential impacts to recreational features/areas will be conducted during Project Development. Future environmental documentation will include an evaluation of the direct, indirect, and cumulative impacts of the proposed project and construction on any public lands and proposed acquisition sites. Impacts will be avoided and/or minimized during the process. FDOT District Four will coordinate with the appropriate agencies concerning the necessary studies, documentation and commitments needed to adequately address any identified resources in accordance with federal, state, and local laws and regulations.

⊞ 0 **FL Department of Environmental Protection (09/04/2014)**

⊞ 0 **South Florida Water Management District (08/18/2014)**

⊞ 0 **US Environmental Protection Agency (09/06/2014)**

⊞ N/A **National Park Service (08/01/2014)**
The following organization(s) were expected to but did not submit comments for this alternative about potential direct effects in the Recreation Areas category: Not Available. Contact the ETDM Help Desk for assistance.

Back to Alternative #1

ETAT Reviews: Natural

Wetlands

Project Effect Comments

Coordinator Summary Degree of Effect: 2 *Minimal*
Response By: FDOT District 4 (11/20/2014)
Comments:

USACE stated that if work is to be performed within waters of the United States (includes existing ditches, canals, etc.) to improve the stormwater management system, a nationwide permit would likely be required. SFWMD also noted that multiple existing Environmental Resource Permits cover portions of the project area; these permits will likely need to be modified. Due to the limited amount of wetlands within the vicinity of the project and the fact that no impacts this resource or surface waters are anticipated, a Summary DOE of Minimal has been assigned to the Wetlands issue.

During Project Development, potential wetland impacts will be evaluated through a Wetlands Evaluation Technical Memorandum to be prepared in accordance with Part 2, Chapter 18 of the FDOT PD&E Manual. All necessary measures will be taken to avoid and/or minimize impacts to wetlands to the greatest extent practicable during project design. Should avoidance and/or minimization not be practicable, a Mitigation Plan will be prepared. In addition, existing compensatory mitigation sites within the area of influence will be identified and reviewed. Further, best management practices will be utilized during project construction and all applicable permits (including an Environmental Resource Permit) will be obtained in accordance with federal, state, and local laws and regulations.

⊞ 0 **US Army Corps of Engineers (08/18/2014)**

⊞ 0 **South Florida Water Management District (08/18/2014)**

⊞ 0 **FL Department of Environmental Protection (09/04/2014)**

⊞ 2 **US Fish and Wildlife Service (07/28/2014)**

⊞ 0 **US Environmental Protection Agency (09/06/2014)**

⊞ 0 **National Marine Fisheries Service (08/12/2014)**

The following organization(s) were expected to but did not submit comments for this alternative about potential direct effects in the Wetlands category: Not Available. Contact the ETDM Help Desk for assistance.

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Water Quality and Quantity

Project Effect Comments

Coordinator Summary Degree of Effect: 2 *Minimal*
Response By: FDOT District 4 (11/20/2014)
Comments:

No impaired waters are located within the project vicinity; however, the project may result in construction related disturbances as well as additional stormwater treatment and right-of-way for retention/detention ponds or swales to meet regulatory water quality criteria. SFWMD identified multiple existing Environmental Resource Permits within the project area that will likely need to be modified; the project permit must meet the criteria of Applicant's Handbook Volume II. Based on the foregoing, a Summary DOE of Minimal has been assigned to the Water Quality and Quantity issue.

During Project Development, FDOT District Four will conduct a Water Quality Impact Evaluation (in accordance with Part 2, Chapter 20 of the FDOT PD&E Manual) and coordinate with all relevant agencies for the design of the proposed stormwater system and the requirements for stormwater treatment, evaluating existing stormwater treatment adequacy and details on the future stormwater treatment facilities. All necessary permits will be obtained in accordance with federal, state, and local laws and regulations.

⊞ 2 **South Florida Water Management District (08/18/2014)**

⊞ 0 **US Environmental Protection Agency (09/06/2014)**

⊞ 0 **FL Department of Environmental Protection (09/04/2014)**

The following organization(s) were expected to but did not submit comments for this alternative about potential direct effects in the Water Quality and Quantity category: Not Available. Contact the ETDM Help Desk for assistance.

Back to Alternative #1

Floodplains

Project Effect Comments

Coordinator Summary Degree of Effect: 0 *None*
Response By: FDOT District 4 (11/20/2014)
Comments:

The proposed interchange improvements will not encroach into any special flood zone hazard areas (100-year floodplain). Therefore, a Summary DOE of None has been assigned to the Floodplains issue.

⊞ 0 **US Environmental Protection Agency (09/06/2014)**

⊞ 0 **South Florida Water Management District (08/18/2014)**

The following organization(s) were expected to but did not submit comments for this alternative about potential direct effects in the Floodplains category: Not Available. Contact the ETDM Help Desk for assistance.

Back to Alternative #1

Wildlife and Habitat

Project Effect Comments

Coordinator Summary Degree of Effect: 2 *Minimal*
Response By: FDOT District 4 (11/20/2014)
Comments:

The interchange is within the South Florida Ecosystem Management Area; FWS Consultation Areas for the Florida scrub-jay, West Indian Manatee, and Atlantic Coast Plants; and Core Foraging Areas of four active nesting Wood Stork colonies. FWC indicated that the only remaining natural habitat along the alignment is north of Gateway Boulevard at the west end of the project area, where a strip of remnant sand pine scrub on the west side of the Quantum Village commercial area grades into a shrub swamp; there is also a hardwood/pine forested "native preservation area" of approximately one acre located between the Children's Services Council facility and High Ridge Road. FWC stated that impacts could be minimized if construction takes place in previously disturbed sites and avoids the remaining xeric scrub area or other natural areas. For these reasons and given the urban nature of the area, a Summary DOE of Minimal has been assigned to the Wildlife and Habitat issue.

The final design of the project will avoid and/or minimize impacts to wetlands/wildlife and habitat to the greatest extent practicable (including confining new DRAs to previously disturbed sites), and best management practices will be utilized during project design and construction; appropriate mitigation will also be provided for unavoidable impacts. During Project Development, an Endangered Species Biological Assessment will be prepared in compliance with Section 7 of the Endangered Species Act (ESA) of 1973, as amended (16 USC 1531 et seq) and in accordance with Part 2, Chapter 27 of the FDOT PD&E Manual. FWC stated that 1) plant community mapping/wildlife surveys are to be performed along the right-of-way and within sites proposed for Drainage Retention Areas, 2) permits are to be obtained if gopher tortoises or nests of other listed species are present within any permanent or temporary construction areas, and 3) a compensatory mitigation plan is to be prepared including the replacement of any wetland, upland, or aquatic habitat lost as a result of the project. USFWS indicated that a functional assessment using the USFWS's Wood Stork Foraging Analysis Methodology is required on the foraging habitat to be impacted and the foraging habitat provided as mitigation for projects that impact 5 or more acres of wood stork foraging habitat.

⊞ 2 **FL Fish and Wildlife Conservation Commission (08/14/2014)**

⊞ 2 **US Fish and Wildlife Service (07/28/2014)**

The following organization(s) were expected to but did not submit comments for this alternative about potential direct effects in the Wildlife and Habitat category: Not Available. Contact the ETDM Help Desk for assistance.

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Coastal and Marine

Project Effect Comments

Coordinator Summary Degree of Effect: 0 *None*
Response By: FDOT District 4 (11/20/2014)
Comments:

As the project is located approximately two miles west of the Atlantic Ocean and Intracoastal Waterway, it is not within an area considered to have coastal or marine resources. The NMFS indicated that the proposed work would not directly impact areas that support essential fish habitat (EFH), NOAA trust fishery resources, or wetland areas that support NOAA trust fishery resources. As such, this project will not require an Essential Fish Habitat Assessment, nor is further consultation with the NMFS necessary unless future modifications to the project could result in adverse impacts to EFH. For these reasons, a Summary DOE of None has been assigned to the Coastal and Marine issue.

⊞ 0 **National Marine Fisheries Service (08/12/2014)**

⊞ 0 **South Florida Water Management District (08/18/2014)**

The following organization(s) were expected to but did not submit comments for this alternative about potential direct effects in the Coastal and Marine category: Not Available. Contact the ETDM Help Desk for assistance.

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ETAT Reviews: Physical

Noise

Project Effect Comments

Coordinator Summary Degree of Effect: 2 *Minimal*
Response By: FDOT District 4 (11/20/2014)
Comments:

Single family homes are located at the northeast and southeast corners of the interchange. Currently, there are sound barriers adjacent to these houses. For this reason, a Summary DOE of Minimal has been assigned to the Noise issue.

During Project Development, a Noise Study Report will be prepared in accordance with Part 2, Chapter 17 of the FDOT PD&E Manual.

No ETAT Reviews were submitted for the Noise Issue.
The following organization(s) were expected to but did not submit comments for this alternative about potential direct effects in the Noise category: Not Available. Contact the ETDM Help Desk for assistance.

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Air Quality

Project Effect Comments

Coordinator Summary Degree of Effect: 2 *Minimal*
Response By: FDOT District 4 (11/20/2014)
Comments:

The project is not located within a USEPA-designated Air Quality Maintenance or Non-Attainment Area for any of the four pollutants (nitrogen oxides, ozone, carbon monoxide, and small particulate matter) specified by the USEPA in National Ambient Air Quality Standards. Therefore, the Clean Air Act conformity requirements do not apply to this project at this time. While temporary impacts to air quality could occur during project construction as a result of fugitive dust and exhaust emissions, no permanent effects to air quality are anticipated. Overall, minor air quality improvement could result due to reduced emissions from idling traffic with the expansion of operational capacity. Based on the foregoing, a Summary DOE of Minimal has been assigned to the Air Quality issue.

During Project Development, an Air Quality Technical Memorandum will be prepared in accordance with Part 2, Chapter 16 of the FDOT PD&E Manual.

⊞ 2 **US Environmental Protection Agency (09/06/2014)**
The following organization(s) were expected to but did not submit comments for this alternative about potential direct effects in the Air Quality category: Not Available. Contact the ETDM Help Desk for assistance.

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Contamination

Project Effect Comments

Coordinator Summary Degree of Effect: 2 *Minimal*
Response By: FDOT District 4 (11/20/2014)
Comments:

FDEP and USEPA reported the following potential contamination sites within the 500-foot project buffer: one hazardous waste facility, three petroleum contamination monitoring sites, seven storage tank contamination monitoring sites, one Super Act risk source, and two USEPA RCRA-regulated facilities. Due to the presence and proximity of these facilities (including potential previous contamination from these sites) and potential presence of hazardous substances associated with the existing bridge over the South Florida Rail Corridor/CSX Railroad line, a Summary DOE of Minimal has been assigned to the Contamination issue.

Contamination (including any required permits) will be evaluated during Project Development in accordance with federal, state and local laws and regulations. A Contamination Screening Evaluation Report (similar to Phase I and Phase II Audits) will be prepared in accordance with Part 2, Chapter 22 of the FDOT PD&E Manual, including site specific surveys to assess existing known subsurface contamination and proximity to construction activities, as well as historical contamination release. Contingency Plans/"Special Provisions for Unidentified Areas of Contamination" shall be included in the project's construction contract documents. These provisions will specify procedures to follow in the event any hazardous material or suspected contamination is encountered during construction or should there be any construction-related spills.

⊞ 2 **FL Department of Environmental Protection (09/04/2014)**

⊞ 2 **US Environmental Protection Agency (09/06/2014)**

⊞ 0 **South Florida Water Management District (08/18/2014)**

The following organization(s) were expected to but did not submit comments for this alternative about potential direct effects in the Contamination category: Not Available. Contact the ETDM Help Desk for assistance.

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Infrastructure

Project Effect Comments

Coordinator Summary Degree of Effect: 2 *Minimal*
Response By: FDOT District 4 (11/20/2014)
Comments:

Infrastructure-related features identified within the 500-foot project buffer include three compliance and enforcement tracking facilities, one onsite sewage facility, one wireless antenna structure location, one USEPA water quality data monitoring station, and the South Florida Rail Corridor/CSX Railroad (located immediately west of the existing interchange). Although the bridge over the existing railroad tracks will be widened, it should have no impact on the existing rail corridor. Given the few features identified and the limited amount of right-of-way acquisition proposed for this project, a Summary DOE of Minimal has been assigned to the Infrastructure issue.

During Project Development, FDOT District Four will coordinate with all appropriate agencies to adequately address potential project effects on infrastructure and acquire all necessary permits.

No ETAT Reviews were submitted for the Infrastructure Issue.
The following organization(s) were expected to but did not submit comments for this alternative about potential direct effects in the Infrastructure category: Not Available. Contact the ETDM Help Desk for assistance.

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Navigation

Project Effect Comments

Coordinator Summary Degree of Effect: N/A *N/A / No Involvement*
Response By: FDOT District 4 (11/20/2014)
Comments:

No navigable waterways are present within the project area. Therefore, a Summary DOE of N/A / No Involvement has been assigned to the Navigation issue.

⊞ N/A **US Army Corps of Engineers (08/18/2014)**

⊞ N/A **US Coast Guard (07/24/2014)**

The following organization(s) were expected to but did not submit comments for this alternative about potential direct effects in the Navigation category: Not Available. Contact the ETDM Help Desk for assistance.

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ETAT Reviews: Special Designations

Special Designations

Project Effect Comments

Coordinator Summary Degree of Effect: 0 *None*
Response By: FDOT District 4 (11/20/2014)
Comments:

There are no Outstanding Florida Waters, aquatic preserves, scenic highways/byways, or wild or scenic rivers reported within the project vicinity. Therefore, no impacts to these resources are anticipated and a Summary DOE of None has been assigned to the Special Designations issue.

⊞ 0 **South Florida Water Management District (08/18/2014)**

⊞ 0 **US Environmental Protection Agency (09/06/2014)**

The following organization(s) were expected to but did not submit comments for this alternative about potential direct effects in the Special Designations category: Not Available. Contact the ETDM Help Desk for assistance.

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Appendix C

ETDM Agency Comments Project #14180 – SR-9/I-95 at Boynton Beach Boulevard Interchange

Agency Environmental Comments

#14180 - SR-9/I-95 at SR-804/Boynton Beach Boulevard Interchange Submit Comment | Request Response | Watch Project

District: District 4 **Phase:** Programming Screen **Contact Information:** Gaspar Jorge Padron (850) 777-4320 gaspar.padron@dot.state.fl.us

Alternative #1

Project Effects Overview for Alternative #1

Issue	Degree of Effect	Organization	Date Reviewed
Social and Economic			
Land Use Changes	2 Minimal	FDOT District 4	08/21/2014
Land Use Changes	0 None	FL Department of Economic Opportunity	08/11/2014
Land Use Changes	2 Minimal	Federal Highway Administration	10/23/2014
Social	2 Minimal	Federal Highway Administration	10/24/2014
Social	3 Moderate	US Environmental Protection Agency	08/24/2014
Social	2 Minimal	FDOT District 4	08/21/2014
Relocation Potential	2 Minimal	FDOT District 4	08/21/2014
Relocation Potential	2 Minimal	Federal Highway Administration	10/24/2014
Farmlands	0 None	Natural Resources Conservation Service	07/14/2014
Farmlands	0 None	Federal Highway Administration	10/23/2014
Aesthetic Effects	2 Minimal	Federal Highway Administration	10/23/2014
Aesthetic Effects	2 Minimal	FDOT District 4	08/21/2014
Economic	0 None	FL Department of Economic Opportunity	08/11/2014
Economic	2 Minimal	Federal Highway Administration	10/23/2014
Economic	2 Minimal	FDOT District 4	08/21/2014
Mobility	1 Enhanced	Federal Highway Administration	10/23/2014
Mobility	1 Enhanced	FDOT District 4	08/21/2014
Cultural			
Section 4(f) Potential	3 Moderate	Federal Highway Administration	10/24/2014
Section 4(f) Potential	N/A N/A / No Involvement	FL Department of Agriculture and Consumer Services	08/14/2014
Historic and Archaeological Sites	3 Moderate	FL Department of State	08/07/2014
Historic and Archaeological Sites	3 Moderate	Federal Highway Administration	10/23/2014
Recreation Areas	0 None	South Florida Water Management District	08/18/2014
Recreation Areas	0 None	US Environmental Protection Agency	08/24/2014

Recreation Areas	N/A N/A / No Involvement	National Park Service	08/01/2014
Recreation Areas	3 Moderate	Federal Highway Administration	10/24/2014
Recreation Areas	0 None	FL Department of Environmental Protection	08/22/2014
Natural			
Wetlands	2 Minimal	National Marine Fisheries Service	08/12/2014
Wetlands	0 None	Federal Highway Administration	10/24/2014
Wetlands	0 None	US Army Corps of Engineers	08/18/2014
Wetlands	0 None	South Florida Water Management District	08/18/2014
Wetlands	0 None	US Environmental Protection Agency	08/24/2014
Wetlands	2 Minimal	US Fish and Wildlife Service	07/11/2014
Wetlands	0 None	FL Department of Environmental Protection	08/22/2014
Water Quality and Quantity	0 None	US Environmental Protection Agency	08/24/2014
Water Quality and Quantity	2 Minimal	South Florida Water Management District	08/18/2014
Water Quality and Quantity	0 None	FL Department of Environmental Protection	08/22/2014
Water Quality and Quantity	2 Minimal	Federal Highway Administration	10/24/2014
Floodplains	0 None	Federal Highway Administration	10/23/2014
Floodplains	0 None	South Florida Water Management District	08/18/2014
Floodplains	0 None	US Environmental Protection Agency	08/24/2014
Wildlife and Habitat	2 Minimal	FL Fish and Wildlife Conservation Commission	08/05/2014
Wildlife and Habitat	2 Minimal	US Fish and Wildlife Service	07/11/2014
Wildlife and Habitat	0 None	Federal Highway Administration	10/24/2014
Coastal and Marine	0 None	Federal Highway Administration	10/23/2014
Coastal and Marine	0 None	National Marine Fisheries Service	08/12/2014
Coastal and Marine	0 None	South Florida Water Management District	08/18/2014
Physical			
Noise	2 Minimal	Federal Highway Administration	10/23/2014
Air Quality	2 Minimal	Federal Highway Administration	10/23/2014
Air Quality	0 None	US Environmental Protection Agency	08/24/2014
Contamination	3 Moderate	FL Department of Environmental Protection	08/22/2014
Contamination	3 Moderate	US Environmental Protection Agency	08/24/2014
Contamination	3 Moderate	Federal Highway Administration	10/23/2014

Contamination	0 None	South Florida Water Management District	08/18/2014
Infrastructure	2 Minimal	Federal Highway Administration	10/23/2014
Navigation	0 None	Federal Highway Administration	10/23/2014
Navigation	0 None	US Army Corps of Engineers	08/18/2014
Navigation	N/A N/A / No Involvement	US Coast Guard	07/17/2014
Special Designations			
Special Designations	0 None	Federal Highway Administration	10/24/2014
Special Designations	0 None	South Florida Water Management District	08/18/2014
Special Designations	0 None	US Environmental Protection Agency	08/24/2014

ETAT Reviews: Social and Economic

Land Use Changes

Project Effect Comments

Coordinator Summary Degree of Effect: 2 *Minimal*
Response By: FDOT District 4 (11/20/2014)
Comments:

FDEO reported that the project is compatible with the development goals of the City of Boynton Beach. FDEO noted that the project is not located in an Area of Critical State Concern or within the Coastal High Hazard Area and does not encroach on a military base; however, since the project is located near public parks, impacts to Section 4(f) resources should be analyzed. The project is included in the FY 2014 - 2019 FDOT Work Program, the Strategic Intermodal System Cost Feasible Plan 2024 - 2040, and the Palm Beach Metropolitan Planning Organization (MPO) FY 2015 - 2019 Transportation Improvement Program (TIP); it is not identified in the Palm Beach MPO Cost Feasible 2035 Long Range Transportation Plan (LRTP) or the State Transportation Improvement Program (STIP). Since the project is intended to enhance access to the City's established Community Redevelopment Area and accommodate future mobility needs of the growing residential and commercial/office activities within the area (through enhanced traffic operations), a Summary DOE of Minimal has been assigned to the Land Use Changes issue.

During the Project Development phase, public outreach will be conducted by FDOT District Four in coordination with the Palm Beach MPO and the City of Boynton Beach to obtain feedback from residents and businesses that may be impacted by the interchange improvement. FDOT District Four will also assess potential Section 4(f) impacts, as well as coordinate with the City of Boynton Beach and the Palm Beach MPO to ensure that 1) the project is included on the Future Transportation Map of the adopted City of Boynton Beach Comprehensive Plan and is consistent with the adopted Palm Beach MPO LRTP and 2) funding is identified for all future project phases in the TIP, LRTP, STIP, and FDOT SIS Cost Feasible Plan.

⊞ 2 **FDOT District 4 (08/21/2014)**

⊞ 0 **FL Department of Economic Opportunity (08/11/2014)**

⊞ 2 **Federal Highway Administration (10/23/2014)**

The following organization(s) were expected to but did not submit comments for this alternative about potential direct effects in the Land Use Changes category: Not Available. Contact the ETDM Help Desk for assistance.

Back to Alternative #1

Social

Project Effect Comments

Coordinator Summary Degree of Effect: 3 *Moderate*
Response By: FDOT District 4 (11/20/2014)
Comments:

FDEO reported that the project is compatible with the development goals of the City of Boynton Beach. FDEO noted that the project is not located in an Area of Critical State Concern or within the Coastal High Hazard Area and does not encroach on a military base; however, since the project is located near public parks, impacts to Section 4(f) resources should be analyzed. The project is included in the FY 2014 - 2019 FDOT Work Program, the Strategic Intermodal System Cost Feasible Plan 2024 - 2040, and the Palm Beach Metropolitan Planning Organization (MPO) FY 2015 - 2019 Transportation Improvement Program (TIP); it is not identified in the Palm Beach MPO Cost Feasible 2035 Long Range Transportation Plan (LRTP) or the State Transportation Improvement Program (STIP). Since the project is intended to enhance access to the City's established Community Redevelopment Area and accommodate future mobility needs of the growing residential and commercial/office activities within the area (through enhanced traffic operations), a Summary DOE of Minimal has been assigned to the Land Use Changes issue.

During the Project Development phase, public outreach will be conducted by FDOT District Four in coordination with the Palm Beach MPO and the City of Boynton Beach to obtain feedback from residents and businesses that may be impacted by the interchange improvement. FDOT District Four will also assess potential Section 4(f) impacts, as well as coordinate with the City of Boynton Beach and the Palm Beach MPO to ensure that 1) the project is included on the Future Transportation Map of the adopted City of Boynton Beach Comprehensive Plan and is consistent with the adopted Palm Beach MPO LRTP and 2) funding is identified for all future project phases in the TIP, LRTP, STIP, and FDOT SIS Cost Feasible Plan.

⊞ 2 **Federal Highway Administration (10/24/2014)**

⊞ 3 **US Environmental Protection Agency (08/24/2014)**

⊞ 2 **FDOT District 4 (08/21/2014)**

The following organization(s) were expected to but did not submit comments for this alternative about potential direct effects in the Social category: Not Available. Contact the ETDM Help Desk for assistance.

Back to Alternative #1

Relocation Potential

Project Effect Comments

Coordinator Summary Degree of Effect: 2 *Minimal*
Response By: FDOT District 4 (11/20/2014)
Comments:

Minor right-of-way acquisition is proposed along SR-804/Boynton Beach Boulevard. No residences are expected to be impacted by the proposed right-of-way acquisition only businesses - specifically eleven commercial businesses located west of the interchange and eight businesses east of the interchange. While access to businesses could temporarily be affected and/or modified during project construction, no relocations are anticipated. For these reasons, a Summary DOE of Minimal has been assigned to the Relocation Potential issue.

Potential relocation effects will be assessed further during Project Development as more detailed and finalized project information regarding right-of-way needs becomes available. The proposed interchange improvements will be adjusted so as to avoid or minimize impacts to identified features.

⊞ 2 **FDOT District 4 (08/21/2014)**

⊞ 2 **Federal Highway Administration (10/24/2014)**

The following organization(s) were expected to but did not submit comments for this alternative about potential direct effects in the Relocation Potential category: Not Available. Contact the ETDM Help Desk for assistance.

Back to Alternative #1

Farmlands

Project Effect Comments

Coordinator Summary Degree of Effect: 0 *None*
Response By: FDOT District 4 (11/20/2014)

Comments:

NRCS determined that there are no Prime, Unique or Locally Important Farmland soils within the 500-foot project buffer. In addition, the project is located within the Miami Urbanized Area. According to Part 2, Chapter 28, Section 28-2.1 of the FDOT PD&E Manual, transportation projects situated within urbanized areas with no adjacent present or future agricultural lands are excluded from Farmland Assessments. Since the project is located within a designated urban area anticipated to continue to support residential and commercial uses, a Summary DOE of None has been assigned to the Farmlands issue.

⊞ 0 **Natural Resources Conservation Service (07/14/2014)**

⊞ 0 **Federal Highway Administration (10/23/2014)**

The following organization(s) were expected to but did not submit comments for this alternative about potential direct effects in the Farmlands category: Not Available. Contact the ETDM Help Desk for assistance.

Back to Alternative #1

Aesthetic Effects

Project Effect Comments

Coordinator Summary Degree of Effect: 2 *Minimal*
Response By: FDOT District 4 (11/20/2014)
Comments:

The project is consistent with the area's future land use vision as it is expected to enhance access to the established Community Redevelopment Area of the City of Boynton Beach and support growing residential and commercial activities. Given the urban nature of the surrounding project area, impacts to aesthetics/the existing visual environment should be limited. Therefore, a Summary DOE of Minimal has been assigned to the Aesthetic Effects issue.

During the Project Development phase, public outreach will be conducted by FDOT District Four in coordination with the Palm Beach Metropolitan Planning Organization and the City of Boynton Beach to solicit opinions and preferences from residents and businesses on potential project effects and general design concepts related to aesthetics.

⊞ 2 **Federal Highway Administration (10/23/2014)**

⊞ 2 **FDOT District 4 (08/21/2014)**

The following organization(s) were expected to but did not submit comments for this alternative about potential direct effects in the Aesthetic Effects category: Not Available. Contact the ETDM Help Desk for assistance.

Back to Alternative #1

Economic

Project Effect Comments

Coordinator Summary Degree of Effect: 2 *Minimal*
Response By: FDOT District 4 (11/20/2014)
Comments:

By improving operational capacity and overall traffic operations, the project is intended to accommodate future travel demand as a result of expanding commercial and residential uses within the vicinity of the interchange. In addition, the improvements will enhance access to SR-9/I-95 (from the east and west) and other major transportation facilities and employment centers (including freight facilities) of Southeast Florida. While no business relocations are anticipated, access to residences and businesses could temporarily be affected and/or modified during construction. Therefore, a Summary DOE of Minimal has been assigned to the Economic issue.

During Project Development, public outreach will be conducted by FDOT District Four in coordination with the Palm Beach Metropolitan Planning Organization and the City of Boynton Beach to solicit input from residents and businesses (located within the vicinity of the interchange) regarding potential economic enhancements/impacts (particularly access to businesses) as a result of the project.

⊞ 0 **FL Department of Economic Opportunity (08/11/2014)**

⊞ 2 **Federal Highway Administration (10/23/2014)**

⊞ 2 **FDOT District 4 (08/21/2014)**

The following organization(s) were expected to but did not submit comments for this alternative about potential direct effects in the Economic category: Not Available. Contact the ETDM Help Desk for assistance.

Back to Alternative #1

Mobility

Project Effect Comments

Coordinator Summary Degree of Effect: 1 *Enhanced*
Response By: FDOT District 4 (11/20/2014)
Comments:

Through improved operational capacity and overall traffic operations, the proposed interchange improvement is anticipated to 1) accommodate future travel demand (thus achieving acceptable Levels of Service at the interchange), 2) allow SR-9/I-95 to continue to facilitate the north-south movement of local and regional traffic, 3) enhance access to SR-9/I-95 and other major transportation facilities and employment centers in Southeast Florida, 4) improve freight mobility, 5) enhance emergency evacuation and response times, and 6) reduce conflict points and the potential occurrence of rear-end collisions. Therefore, a Summary DOE of Enhanced has been assigned to the Mobility issue.

During Project Development, public outreach will be conducted by FDOT District Four in coordination with the Palm Beach Metropolitan Planning Organization and the City of Boynton Beach to solicit community opinions and preferences, targeting input from the transportation disadvantaged population, regarding the project.

⊞ 1 **Federal Highway Administration (10/23/2014)**

⊞ 1 **FDOT District 4 (08/21/2014)**

The following organization(s) were expected to but did not submit comments for this alternative about potential direct effects in the Mobility category: Not Available. Contact the ETDM Help Desk for assistance.

Back to Alternative #1

ETAT Reviews: Cultural

Section 4(f) Potential

Project Effect Comments

Coordinator Summary Degree of Effect: 3 *Moderate*
Response By: FDOT District 4 (11/21/2014)
Comments:

Potentially protected Section 4(f) resources reported within the 200-foot project buffer include Barton Memorial Park and Galaxy Park. Access to these recreational features could be temporarily impeded and/or modified by project construction. In addition, unrecorded cultural resources (eligible or potentially eligible for listing in the National Register of Historic Places) may exist since a comprehensive survey has not been conducted for the project area. For these reasons, a Summary DOE of Minimal has been assigned to the Section 4(f) Potential issue.

During Project Development, a Section 4(f) Determination of Applicability (DOA) will be conducted in coordination with FHWA (in accordance with Part 2, Chapter 13 of the FDOT PD&E Manual) to determine the extent of Section 4(f) involvement and focus any required documents on the avoidance and/or minimization of impacts.

⊞ 3 **Federal Highway Administration (10/24/2014)**

⊞ N/A **FL Department of Agriculture and Consumer Services (08/14/2014)**
The following organization(s) were expected to but did not submit comments for this alternative about potential direct effects in the Section 4(f) Potential category: Not Available. Contact the ETDM Help Desk for assistance.

Back to Alternative #1

Historic and Archaeological Sites

Project Effect Comments

Coordinator Summary Degree of Effect: 3 *Moderate*
Response By: FDOT District 4 (11/20/2014)
Comments:

FDOS commented that there is one known significant resource in the project area (the Seaboard Air Line Railway); other recorded structures of potential significance within the area have not been evaluated to date by the SHPO. FDOS also indicated that four neighborhoods within the immediate project vicinity may be historic districts; while portions of all four have been surveyed, none have been evaluated by the SHPO. For these reasons and due to the possible presence of unrecorded cultural resources [eligible or potentially eligible for listing in the National Register of Historic Places (NRHP)] within the project area, a Summary DOE of Moderate has been assigned to the Historic and Archaeological Sites issue.

During Project Development, a Cultural Resource Assessment Survey will be conducted (in accordance with Part 2, Chapter 12 of the FDOT PD&E Manual) to determine the presence of historic, cultural and archeological resources in the area and evaluate their eligibility for listing in the NRHP. Any potential impacts to such resources will be avoided and/or minimized during the process.

⊞ 3 **FL Department of State (08/07/2014)**

⊞ 3 **Federal Highway Administration (10/23/2014)**
The following organization(s) were expected to but did not submit comments for this alternative about potential direct effects in the Historic and Archaeological Sites category: Not Available. Contact the ETDM Help Desk for assistance.

Back to Alternative #1

Recreation Areas

Project Effect Comments

Coordinator Summary Degree of Effect: 3 *Moderate*
Response By: FDOT District 4 (11/21/2014)
Comments:

While the two parks within the 200-foot buffer, Barton Memorial Park and Galaxy Park, are not anticipated to be directly impacted by the project, access to these features may be temporarily affected during project construction. For this reason, a Summary DOE of Minimal has been assigned to the Recreation Areas issue.

An assessment of potential impacts to recreational features/areas will be conducted during Project Development. Future environmental documentation will include an evaluation of the direct, indirect, and cumulative impacts of the proposed project and construction on any public lands and proposed acquisition sites. Impacts will be avoided and/or minimized during the process. FDOT District Four will coordinate with the appropriate agencies concerning the necessary studies, documentation and commitments needed to adequately address any identified resources in accordance with federal, state, and local laws and regulations.

⊞ 0 **South Florida Water Management District (08/18/2014)**

⊞ 0 **US Environmental Protection Agency (08/24/2014)**

⊞ N/A **National Park Service (08/01/2014)**

⊞ 3 **Federal Highway Administration (10/24/2014)**

⊞ 0 **FL Department of Environmental Protection (08/22/2014)**
The following organization(s) were expected to but did not submit comments for this alternative about potential direct effects in the Recreation Areas category: Not Available. Contact the ETDM Help Desk for assistance.

Back to Alternative #1

ETAT Reviews: Natural

Wetlands

Project Effect Comments

Coordinator Summary Degree of Effect: 2 *Minimal*
Response By: FDOT District 4 (11/20/2014)
Comments:

USACE stated that if work is to be performed within waters of the United States (includes existing ditches, canals, etc.) to improve the stormwater management system, a nationwide permit would likely be required. SFWMD also noted that an Environmental Resource Permit and Water Use Permit may be necessary. While a series of canals and one stormwater retention pond exist within the project area, 0.1 acre of palustrine wetlands is reported within the 500-foot project buffer. Due to the limited amount of wetlands within the vicinity of the project and the fact that no impacts to this resource or surface waters are anticipated, a Summary DOE of Minimal has been assigned to the Wetlands issue.

During Project Development, potential wetland impacts will be evaluated through a Wetlands Evaluation Technical Memorandum to be prepared in accordance with Part 2, Chapter 18 of the FDOT PD&E Manual. All necessary measures will be taken to avoid and/or minimize impacts to wetlands to the greatest extent practicable during project design. Should avoidance and/or minimization not be practicable, a Mitigation Plan will be prepared. In addition, existing compensatory mitigation sites within the area of influence will be identified and reviewed. Further, best management practices will be utilized during project construction and all applicable permits (including an Environmental Resource Permit) will be obtained in accordance with federal, state, and local laws and regulations.

⊞ 2 **National Marine Fisheries Service (08/12/2014)**

⊞ 0 **Federal Highway Administration (10/24/2014)**

⊞ 0 **US Army Corps of Engineers (08/18/2014)**

⊞ 0 **South Florida Water Management District (08/18/2014)**

⊞ 0 **US Environmental Protection Agency (08/24/2014)**

⊞ 2 **US Fish and Wildlife Service (07/11/2014)**

⊞ 0 **FL Department of Environmental Protection (08/22/2014)**
The following organization(s) were expected to but did not submit comments for this alternative about potential direct effects in the Wetlands category: Not Available. Contact the ETDM Help Desk for assistance.

Back to Alternative #1

Water Quality and Quantity

Project Effect Comments

Coordinator Summary Degree of Effect: 2 *Minimal*
Response By: FDOT District 4 (11/20/2014)
Comments:

No impaired waters are located within the project vicinity; however, the project may result in construction related disturbances as well as additional stormwater treatment and right-of-way for retention/detention ponds or swales to meet regulatory water quality criteria. SFWMD identified an existing Environmental Resource Permit (50-04473-P) that could potentially be modified to include the project improvements; the permit must meet the

criteria of Applicant's Handbook Volume II. Based on the foregoing, a Summary DOE of Minimal has been assigned to the Water Quality and Quantity issue.

During Project Development, FDOT District Four will conduct a Water Quality Impact Evaluation (in accordance with Part 2, Chapter 20 of the FDOT PD&E Manual) and coordinate with all relevant agencies for the design of the proposed stormwater system and the requirements for stormwater treatment, evaluating existing stormwater treatment adequacy and details on the future stormwater treatment facilities. All necessary permits will be obtained in accordance with federal, state, and local laws and regulations.

⊞ 0 **US Environmental Protection Agency (08/24/2014)**

⊞ 2 **South Florida Water Management District (08/18/2014)**

⊞ 0 **FL Department of Environmental Protection (08/22/2014)**

⊞ 2 **Federal Highway Administration (10/24/2014)**

The following organization(s) were expected to but did not submit comments for this alternative about potential direct effects in the Water Quality and Quantity category: Not Available. Contact the ETDM Help Desk for assistance.

Back to Alternative #1

Floodplains

Project Effect Comments

Coordinator Summary Degree of Effect: 0 *None*
Response By: FDOT District 4 (11/20/2014)
Comments:

The proposed interchange improvements will not encroach into any special flood zone hazard areas (100-year floodplain). Therefore, a Summary DOE of None has been assigned to the Floodplains issue.

⊞ 0 **Federal Highway Administration (10/23/2014)**

⊞ 0 **South Florida Water Management District (08/18/2014)**

⊞ 0 **US Environmental Protection Agency (08/24/2014)**

The following organization(s) were expected to but did not submit comments for this alternative about potential direct effects in the Floodplains category: Not Available. Contact the ETDM Help Desk for assistance.

Back to Alternative #1

Wildlife and Habitat

Project Effect Comments

Coordinator Summary Degree of Effect: 2 *Minimal*
Response By: FDOT District 4 (11/20/2014)
Comments:

The interchange is within the South Florida Ecosystem Management Area; FWS Consultation Areas for the Florida scrub-jay, West Indian Manatee, and Atlantic Coast Plants; and Core Foraging Areas of four active nesting Wood Stork colonies. FWC indicated that the only significant area of natural habitat along the alignment (adjacent to the I-95 right-of-way) is a strip of remnant xeric scrub that is north and west of the Galaxy Elementary School campus located in the northeast quadrant of the interchange. FWC stated that impacts could be minimized if construction takes place in previously disturbed sites and avoids the remaining xeric scrub area or other natural areas. For these reasons and given the urban nature of the area, a Summary DOE of Minimal has been assigned to the Wildlife and Habitat issue.

The final design of the project will avoid and/or minimize impacts to wetlands/wildlife and habitat to the greatest extent practicable (including confining new DRAs to previously disturbed sites), and best management practices will be utilized during project design and construction; appropriate mitigation will also be provided for

unavoidable impacts. During Project Development, an Endangered Species Biological Assessment will be prepared in compliance with Section 7 of the Endangered Species Act (ESA) of 1973, as amended (16 USC 1531 et seq) and in accordance with Part 2, Chapter 27 of the FDOT PD&E Manual. FWC stated that 1) plant community mapping/wildlife surveys are to be performed along the right-of-way and within sites proposed for Drainage Retention Areas, 2) permits are to be obtained if gopher tortoises or nests of other listed species are present within any permanent or temporary construction areas, and 3) a compensatory mitigation plan is to be prepared including the replacement of any wetland, upland, or aquatic habitat lost as a result of the project. USFWS indicated that a functional assessment using the USFWS's Wood Stork Foraging Analysis Methodology is required on the foraging habitat to be impacted and the foraging habitat provided as mitigation for projects that impact 5 or more acres of wood stork foraging habitat.

⊞ 2 **FL Fish and Wildlife Conservation Commission (08/05/2014)**

⊞ 2 **US Fish and Wildlife Service (07/11/2014)**

⊞ 0 **Federal Highway Administration (10/24/2014)**

The following organization(s) were expected to but did not submit comments for this alternative about potential direct effects in the Wildlife and Habitat category: Not Available. Contact the ETDM Help Desk for assistance.

Back to Alternative #1

Coastal and Marine

Project Effect Comments

Coordinator Summary Degree of Effect: 0 *None*
Response By: FDOT District 4 (11/20/2014)
Comments:

As the project is located approximately three miles west of the Atlantic Ocean and Intracoastal Waterway, it is not within an area considered to have coastal or marine resources. The NMFS indicated that the proposed work would not directly impact areas that support essential fish habitat (EFH), NOAA trust fishery resources, or wetland areas that support NOAA trust fishery resources. As such, this project will not require an Essential Fish Habitat Assessment, nor is further consultation with the NMFS necessary unless future modifications to the project could result in adverse impacts to EFH. For these reasons, a Summary DOE of None has been assigned to the Coastal and Marine issue.

⊞ 0 **Federal Highway Administration (10/23/2014)**

⊞ 0 **National Marine Fisheries Service (08/12/2014)**

⊞ 0 **South Florida Water Management District (08/18/2014)**

The following organization(s) were expected to but did not submit comments for this alternative about potential direct effects in the Coastal and Marine category: Not Available. Contact the ETDM Help Desk for assistance.

Back to Alternative #1

ETAT Reviews: Physical

Noise

Project Effect Comments

Coordinator Summary Degree of Effect: 2 *Minimal*
Response By: FDOT District 4 (11/20/2014)
Comments:

Noise sensitive receptors identified within a quarter-mile buffer of the interchange improvements include: one hotel, one funeral home, one health care facility, one laser facility, group care facilities, schools, churches, parks, cultural resources, and single family homes. Currently, there are no sound barriers along the interchange. Although increased noise levels during construction could have potential short-term impacts on nearby residences and businesses, overall noise and vibration related impacts as a result of the project are anticipated to be minor. Therefore, a Summary DOE of Minimal has been assigned to the Noise issue.

During Project Development, a Noise Study Report will be prepared in accordance with Part 2, Chapter 17 of the FDOT PD&E Manual.

⊞ 2 **Federal Highway Administration (10/23/2014)**
The following organization(s) were expected to but did not submit comments for this alternative about potential direct effects in the Noise category: Not Available. Contact the ETDM Help Desk for assistance.

Back to Alternative #1

Air Quality

Project Effect Comments

Coordinator Summary Degree of Effect: 2 *Minimal*
Response By: FDOT District 4 (11/20/2014)
Comments:

The project is not located within a USEPA-designated Air Quality Maintenance or Non-Attainment Area for any of the four pollutants (nitrogen oxides, ozone, carbon monoxide, and small particulate matter) specified by the USEPA in National Ambient Air Quality Standards. Therefore, the Clean Air Act conformity requirements do not apply to this project at this time. While temporary impacts to air quality could occur during project construction as a result of fugitive dust and exhaust emissions, no permanent effects to air quality are anticipated. Overall, minor air quality improvement could result due to reduced emissions from idling traffic with the expansion of operational capacity. Based on the foregoing, a Summary DOE of Minimal has been assigned to the Air Quality issue.

During Project Development, an Air Quality Technical Memorandum will be prepared in accordance with Part 2, Chapter 16 of the FDOT PD&E Manual.

⊞ 2 **Federal Highway Administration (10/23/2014)**

⊞ 0 **US Environmental Protection Agency (08/24/2014)**
The following organization(s) were expected to but did not submit comments for this alternative about potential direct effects in the Air Quality category: Not Available. Contact the ETDM Help Desk for assistance.

Back to Alternative #1

Contamination

Project Effect Comments

Coordinator Summary Degree of Effect: 3 *Moderate*
Response By: FDOT District 4 (11/20/2014)
Comments:

FDEP and USEPA reported several potential contamination sites within the 500-foot project buffer including: three hazardous waste facilities, eight petroleum contamination monitoring sites, thirteen storage tank contamination monitoring sites, four Super Act risk sources, and five USEPA RCRA-regulated facilities. Due to the presence and proximity of these facilities (including potential previous contamination from these sites) and potential presence of hazardous substances associated with the existing bridge over the South Florida Rail Corridor/CSX Railroad line, a Summary DOE of Moderate has been assigned to the Contamination issue.

Contamination (including any required permits) will be evaluated during Project Development in accordance with federal, state and local laws and regulations. A Contamination Screening Evaluation Report (similar to Phase I and Phase II Audits) will be prepared in accordance with Part 2, Chapter 22 of the FDOT PD&E Manual, including site specific surveys to assess existing known subsurface contamination and proximity to construction activities, as well as historical contamination release. Contingency Plans/"Special Provisions for Unidentified Areas of Contamination" shall be included in the project's construction contract documents. These provisions will specify procedures to follow in the event any hazardous material or suspected contamination is encountered during construction or should there be any construction-related spills.

⊞ 3 **FL Department of Environmental Protection (08/22/2014)**

⊞ 3 **US Environmental Protection Agency (08/24/2014)**

⊞ 3 **Federal Highway Administration (10/23/2014)**

⊞ 0 **South Florida Water Management District (08/18/2014)**

The following organization(s) were expected to but did not submit comments for this alternative about potential direct effects in the Contamination category: Not Available. Contact the ETDM Help Desk for assistance.

Back to Alternative #1

Infrastructure

Project Effect Comments

Coordinator Summary Degree of Effect: 2 *Minimal*
Response By: FDOT District 4 (11/20/2014)
Comments:

Infrastructure-related features identified within the 500-foot project buffer include five compliance and enforcement tracking facilities, five onsite sewage facilities, and the South Florida Rail Corridor/CSX Railroad (located immediately west of the existing interchange). Although the bridge over the existing railroad tracks will be widened, it should have no impact on the existing rail corridor. Given the few features identified and the limited amount of right-of-way acquisition proposed for this project, a Summary DOE of Minimal has been assigned to the Infrastructure issue.

During Project Development, FDOT District Four will coordinate with all appropriate agencies to adequately address potential project effects on infrastructure and acquire all necessary permits.

⊞ 2 **Federal Highway Administration (10/23/2014)**

The following organization(s) were expected to but did not submit comments for this alternative about potential direct effects in the Infrastructure category: Not Available. Contact the ETDM Help Desk for assistance.

Back to Alternative #1

Navigation

Project Effect Comments

Coordinator Summary Degree of Effect: 0 *None*
Response By: FDOT District 4 (11/20/2014)
Comments:

USACE stated that if work is to be performed within waters of the United States (includes existing ditches, canals, etc.) to improve the stormwater management system, a nationwide permit would likely be required. The proposed project is not anticipated to impact the navigation of any canal or surface water within the area. Therefore, a Summary DOE of None has been assigned to the Navigation issue.

⊞ 0 **Federal Highway Administration (10/23/2014)**

⊞ 0 **US Army Corps of Engineers (08/18/2014)**

⊞ N/A **US Coast Guard (07/17/2014)**

The following organization(s) were expected to but did not submit comments for this alternative about potential direct effects in the Navigation category: Not Available. Contact the ETDM Help Desk for assistance.

Back to Alternative #1

ETAT Reviews: Special Designations

Special Designations

Project Effect Comments

Coordinator Summary Degree of Effect: 0 *None*
Response By: FDOT District 4 (11/20/2014)
Comments:

There are no Outstanding Florida Waters, aquatic preserves, scenic highways/byways, or wild or scenic rivers reported within the project vicinity. Therefore, no impacts to these resources are anticipated and a Summary DOE of None has been assigned to the Special Designations issue.

⊞ 0 **Federal Highway Administration (10/24/2014)**

⊞ 0 **South Florida Water Management District (08/18/2014)**

⊞ 0 **US Environmental Protection Agency (08/24/2014)**

The following organization(s) were expected to but did not submit comments for this alternative about potential direct effects in the Special Designations category: Not Available. Contact the ETDM Help Desk for assistance.

Back to Alternative #1

Appendix D

City of Boynton Beach Official Future Land Use Map

City of Boynton Beach
Official Future Land Use Map

Legend

- Community Redevelopment Area
- Urban CBD
- TCEA Boundary
- Railroads
- City Boundary
- WATER

Land Use Description

- LOW DENSITY RESIDENTIAL (LDR) Max. 4.84 D.U./Acre
- MODERATE DENSITY RESIDENTIAL (MODR) Max. 7.26 D.U./Acre
- MEDIUM DENSITY RESIDENTIAL (MEDR) Max. 9.58 D.U./Acre
- HIGH DENSITY RESIDENTIAL (HDR) Max. 10.8 D.U./Acre
- SPECIAL HIGH DENSITY RESIDENTIAL (SHDR)
- OFFICE COMMERCIAL (OC)
- LOCAL RETAIL COMMERCIAL (LRC)
- GENERAL COMMERCIAL (GC)
- INDUSTRIAL (I)
- RECREATIONAL (R)
- PUBLIC & PRIVATE GOVERNMENTAL/INSTITUTIONAL (PPGI)
- MIXED USE (MX)
- MIXED USE CORE (MXC)
- MIXED USE SUBURBAN (MXS)
- DEVELOPMENT OF REGIONAL IMPACT (DRI)
- CONSERVATION (CON)
- CONSERVATION OVERLAY (C/O)

October 15, 2012

Source: Palm Beach County GIS Digital Data 2006-2012

2,640 1,320 0 2,640 Feet

GIS1:/PROJECTS/PLANNING/PROJECTS/FUTURELAND/APR.MXD./Futurelanduse36x50.mxd

1. *This property is restricted to a maximun of 1,120 high density residential units, 10,000 s.f. of office commercial use and 149,000 s.f. of local retail commercial use.*
2. *This property is restricted to a maximun of 250,000 s.f. of local retail commercial use*

The information depicted on this map was correct as of (date of last amendment) and should be used be for informational purpose only. More recent versions of the map may be available.Please do not make any decisions based on the information herin without consulting someone on the Planning and Zoning Staff.